MARCH 1961

The Controller

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EDITED FOR CORPORATE CONTROL & FINANCIAL OFFICERS

HOW TO INSTALL A COST SYSTEM
Winfield I. McNeill

TRACING PROFITS OVERSEAS
John D. Woodthorpe

THE INFLUENCE OF EDP ON INTERNAL CONTROL
Robert J. Fitzpatrick

BUDGETS AND HOME OFFICE EXPENSES
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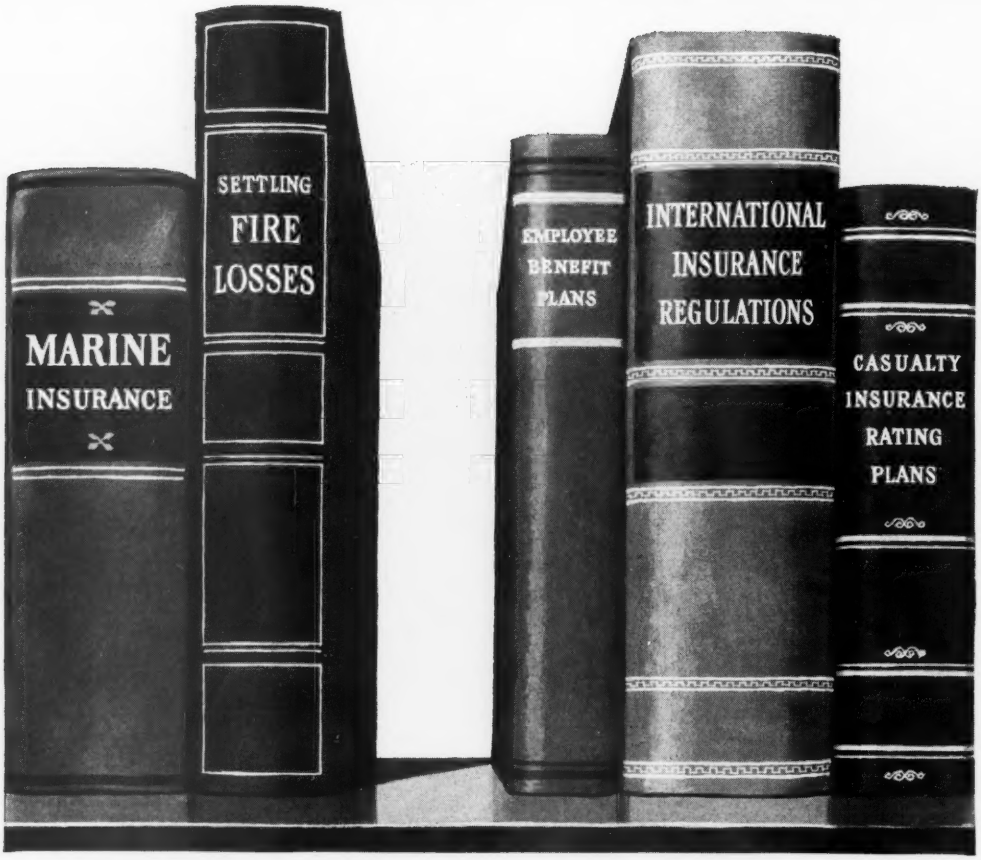

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Editorial material in THE CONTROLLER is selected in accordance with the following:

CONCEPT OF MODERN CONTROLLERSHIP
of Controllers Institute of America

1. To establish, coordinate and administer, as an integral part of management, an adequate plan for the control of operations. Such a plan would provide, to the extent required in the business, profit planning, programs for capital investing and for financing, sales forecasts, expense budgets and cost standards, together with the necessary procedures to effectuate the plan.

2. To compare performance with operating plans and standards, and to report and interpret the results of operations to all levels of management and to the owners of the business. This function includes the formulation and administration of accounting policy and the compilation of statistical records and special reports as required.

3. To consult with all segments of management responsible for policy or action concerning any phase of the operation of the business as it relates to the attainment of objectives and the effectiveness of policies, organization structure and procedures.

4. To administer tax policies and procedures.

5. To supervise or coordinate the preparation of reports to governmental agencies.

6. To assure fiscal protection for the assets of the business through adequate internal control and proper insurance coverage.

7. To continuously appraise economic and social forces, and government influences, and interpret their effect upon the business.

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The Controller

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Correspondence

DEVELOPING THE SPECIFICS OF MANAGEMENT CONTROLS

Editors, THE CONTROLLER:

The article on management controls ("Stimulating Action Through Management Control," THE CONTROLLER, December 1960) by Edward C. Schleh, management consultant, is one of the best I have seen covering this complex and, many times, misunderstood subject. As a fellow member of the management consulting profession, I would like to add a few suggestions to Mr. Schleh's.

A very good technique for developing the specifics of management controls is to start with the people who are to use the controls, to sit down with them and thrash out the answers to the question: *What kind of data do you need to achieve maximum results from your operation and how often do you need this information?* With these two basic requirements agreed on, the next step is to work down into the procedural details, accounting and other, to find a method for accumulating and reporting this information on a timely basis.

The point is, start first with what management wants and needs, and then figure out how to get it.

A common complaint by management is that the information received does not show trends. Another statement made many times by management is that reports are so thick with details that it is physically impossible to get through one set before receiving the next. At the same time, relevant information is often received too late to be effectively acted upon because it was being held until presentation could be made in a formal report.

Outside the area of the recurring financial statement, surprisingly few details are needed by management. As Mr. Schleh pointed out, one plant manager needed only eight figures to control his operation. However, information must be supplied at the proper time. Some figures are needed daily, some weekly and others only once a month.

Too many financial people, when asked by management for certain data, say, "I can get it for you; however, the accounting system is not designed to produce that information, and it will cost quite a bit to work it up for you." After all, *what purpose is there in having financial records, outside of legal requirements, if the system does not provide management with adequate and readily accessible control data?*

JOHN A. HENNING
Cresap, McCormick and Paget
Chicago, Illinois

DO YOU AGREE or do you disagree with an article in this month's issue? Your fellow readers will be interested. Naturally, letters to the editor must bear the writer's signature and address; these will be withheld on request. The Editors

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A SOURCE OF IDEAS

Editors, THE CONTROLLER:

Thank you very much for the sample copy of THE CONTROLLER which you sent so soon in response to my request.

It appears that THE CONTROLLER is just the type of journal that will fill my needs, that is, a source of ideas which will help me in my job as assistant accountant in a large milk products manufacturing and distributing company. (Actually it is a subsidiary of the worldwide Nestle's organization.)

I would like to subscribe for a year. . . .

HAROLD A. BRANCH
Kingston, Jamaica
West Indies

A COST CONTROL PROGRAM

Editors, THE CONTROLLER:

Will you please make available to me all data available on successful ways of putting a cost control program into effect with a sales organization basically operating abroad. Thanking you in advance for any help you can give.

CEM
New York

Although several articles relating to your inquiry have appeared in THE CONTROLLER *and some presentations have been made at Controllers Institute annual conferences, we have not published any studies in this specific area. However, we would call your attention to a study made by Controllers Institute Research Foundation,* Management Planning and Control: The H. J. Heinz Approach—*a case study in management planning and control which sets forth policies, methods and practices in operation in the H. J. Heinz Co. with particular emphasis on the role played by the controller's department. Below we are adding a bibliography of some pertinent materials and we refer you to the articles on pages 113 and 142 in this issue.* —*The Editors*

(Continued on page 110)

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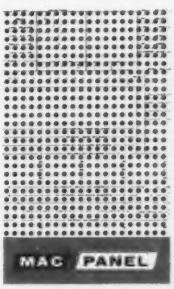

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How fixed are "fixed" assets?

Adapted from One of the Clients' Service Bulletins of The American Appraisal Company

The mere mention of the term "current assets" brings to mind such items as cash, inventories, and accounts receivable. These assets are considered short-lived, mobile and changeable; yet, during their comparatively short life, an accurate account is kept of each item until it clears through the records.

Trend to relocation

Can "fixed" assets—the plant itself, buildings and equipment—go through a metamorphosis and emerge as assets necessitating similar financial control? By time-honored precedents, manufacturing facilities have, until recently at least, been designated as "fixed" with all the permanency, long life and immobility that the word implies.

In recent years many plants have relocated to take advantage of more favorable sources of raw materials, better transportation, available labor and nearness of markets. Existing equipment is also subject to accelerated obsolescence, abandonment, changes in use, reconstruction or replacement. Are such assets "fixed" in view of the existing trends to improvement or change?

Properties "on the move"

With the possible exception of land, "fixed" assets are not fixed in the sense that they are permanent. Some future event or decision of management may cause the continued use of the "fixed" assets to be terminated more quickly than anticipated because of sale, abandonment or obsolescence.

In this era when plant properties —often the largest item on the balance sheet—can be said to be on the move, it is desirable to provide for their control and accounting as effectively as for current assets. This is possible through basic unit property records kept constantly up to date to reflect changes that have actually taken place or that may be contemplated by management.

★ ★ ★

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(Continued from page 108)

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Winfield I. McNeill

How To Install a Cost System

Recognizing that the real test is its acceptability by the people who have to use it

AN APPLICANT for the position of divisional controller of a large company was recently asked the question: *"How would you go about installing a cost system?"* His answer was: "I would first read a book on the subject and then follow the rules it laid out."

The applicant was an optimist because, although accounting literature abounds in excellent books on general theory, there is a dearth of practical manuals that explain just what to do and how to do it. This article is designed to help remedy the deficiency by listing the actual steps to be taken by the person installing a cost system.

Before that person embarks on the steps that follow, however, he should obtain written approval from the president or other executive officer of his company for the two basic foundations of such a system: A set of objectives to serve him as a guide in the installation of all procedures and methods and an accounting philosophy to underlie policies and practices and to help him work out answers to the questions on which expert opinion differs.

A SET OF OBJECTIVES

A typical set of fundamental objectives might comprise the ensuing four:

1. To determine how much money is being made or lost (before federal taxes) by product, product group, or services rendered;

2. To provide adequate control over all inventories to insure their accuracy;

3. To provide for the control of fixed assets for cost, insurance, and tax purposes and to determine rates of depreciation which will represent the estimated useful life of the equipment for cost purposes; and

4. To determine the relative performances in each department or plant and, for the plant as a whole, in each classification of expense—labor, materials and overhead.

Fulfilling the final one of these objectives would involve comparing the actual money spent with the attainable standard amount that should have been spent under the conditions of the plant's operation during the period in question.

AN ACCOUNTING PHILOSOPHY

The reason for settling, with higher management, on an accounting philosophy grows out of the lack of any such philosophy that reflects universally accepted general policy. One might consult leading textbooks, ask company auditors, and talk to recent graduates from accredited business schools without finding out how to choose from among the many accounting alternatives given in the literature. As a matter of fact, there is even a diversity of opinion on accounting philosophies among partners of public accounting firms, members of the accounting societies, controllers, cost accountants, and officials of the Securities and Exchange Commission and the Bureau of Internal Revenue.

Items on which opinions differ widely are methods for taking depreciation and for pricing inventories. A possible (not to say preferred) philosophical approach to those items would be from the point of view of recording, within a reasonable degree of accuracy, the actual historical facts of the business. That philosophy would lead one to price inventories on the basis of actual cost rather than according to an arbitrary standard such as LIFO (last-in-first-out). It would set up a rate of depreciation representative of the useful life of the asset being depreciated, while management, in planning for the future, estimates the additional cash need for replacement along with other future cash needs.

Having adopted a set of objectives and a philosophy of accounting to use as guides, one is ready to get to work on the job of installing the system. A check list of things to do, in the order in which they are usually done, is presented below. (Those items which are starred are the subjects of fuller discussion in the final section of this article.)

CHECK LIST OF THINGS TO DO

1. Get proper introductions by top company officials to all concerned in the work of setting up the system. The scope of the work should be defined and explained to everybody.

2. Take a walk through the plants with the top plant official in order to get a bird's-eye view of operations.

3. Request the preparation of flow charts of operations in each processing department, showing the major pieces of equipment through which the company's products pass.

4. Get a complete list of finished products.

5. Determine whether or not the fixed asset record is by individual piece of equipment. If not, have such a list made showing the cost value of each piece, its date of acquisition, and its remaining years of useful life. Appraisal by an out-

WINFIELD I. MCNEILL, a member of Controllers Institute, is one of a growing number of retired businessmen who are making their talents available to industry and government as private consultants. Mr. McNeill, a graduate engineer of MIT in the Chemical Engineering Option of the course in Engineering Administration, spent over 30 years of his career with four companies: General Aniline & Film Corp.; E. R. Squibb; Colgate-Palmolive Co., and Procter & Gamble Company. He retired in 1953 and opened a consulting office in New York City. He is author of many published articles.

side appraisal company is preferable.

*6. Prepare a list of cost centers, both operating and service.

7. Obtain floor plans of each building and assign all floor space to specific cost centers.

8. Classify each piece of equipment by cost center, and note the cost value and the monthly depreciation charge. Prescribe a routine for reporting additions to, retirement from, and transfers between each center's roster of equipment, if one is not already in use.

9. Arrange for an engineer to make a study of the usage of each utility, such as steam, electricity, gas, water, compressed air, or refrigeration and derive factors for the usage of each per unit of production or per machine hour, where products are involved, and on a monthly or other basis, where they are not.

*10. Determine the type of cost system applicable to each department of the plant —whether a process cost system or a job cost system. (The use of standards will be discussed later.)

*11. Adopt a code of accounts for both general and expense ledgers which will fit the contemplated cost procedures and which will be suitable for financial statements.

12. Get samples of all current factory forms used either for accounting or production. Determine if each contributes to the system which you plan, or if revisions are necessary.

13. Examine the established duties of the factory and accounting clerks and supervisors to determine how they fit in with what you propose.

14. Set up a timetable for the collection of all expenses by cost center and by accounting code.

15. Determine the method for recording receipt of each class of raw materials and supplies, and coordinate production planning and purchasing. Provide for a numerical code for each class and decide whether the accounting is to be done by hand or by machine. Determine the frequency of physical inventories for verification of book figures.

16. Determine how labor will be reported. Prepare labor codes by operation and product or job for cost requirements and for the measurement of factory performance. Set a timetable.

*17. Make up bases for distributing all expenses collected by cost center (excluding direct labor, which will be reported and summarized by operation or product): Service centers to operating centers, and operating centers to products, or operations, or jobs.

18. Make a schedule of all data needed from factory reports for either a process cost or a job cost system and decide whether to use available reports or create new ones. For the process cost system, decide how data ought to be assembled for cost calculations and for verifying inventories. Arrange for assembling data on scrap, wastages, and degradings for use in both costs and performance reports.

19. Obtain a set of formulas, yields, and so forth, for use in both cost determinations and performance reports for a process system.

20. For a job cost system, arrange for charging materials, labor, and overhead to jobs, and for relieving job costs because of partial shipments. Arrange for a limit on the size of a job, so that it may be completed within a reasonable length of time.

21. Arrange for the determination, by the methods of industrial engineering, of standards for direct labor, yields, wastages, scrap, and degradings for use in measuring performance. Include also standards for indirect labor, repairs and maintenance, and other items of overhead for which standards are applicable.

*22. Arrange for the determination of standards for each item of shipping, distribution, selling, advertising and promotion, research and development, and general and administrative expense for use in the preparation of profitability statements by product or product group.

23. Set up a system for research and development for the accumulation of money spent by project. This system will be coordinated with the division of products or product groups for net profitability statements and for the use of management in deciding on a budget for research and development.

24. Set up timetables and procedures for the forecasting of sales, profits and expenses for the entire company for the coming year.

*25. Settle on and get approval for the regular and special report with which management is to be provided.

The following paragraphs are devoted to a further explanation of the check list items which are starred.

Check List Item #6

COST CENTERS BOTH OPERATING AND SERVICE

A cost center may be defined as a building, a part of a building, or a group of buildings, on the one hand; or as an accounting device for the collection of expenses, on the other.

Cost centers are generally divided into three principal groups:

1. *Production centers*—that is, centers directly involved in making the products which the company offers for sale;

2. *Service centers*—such as buildings, roads and grounds; utilities; facilities for receiving, handling and storing materials; facilities for general welfare, building and equipment maintenance, or for general offices—which contribute to the operation of the plant but which are not directly concerned with production; and

3. *Centers of auxiliary operations*—printing, for example, or the making of chemicals or parts to use in production or in packing and shipping materials.

Equipment may be grouped by cost centers in a so-called vertical or horizontal manner.

A *vertical center* may be described as a group of different kinds of equipment used specifically for one particular product or a group of products. It usually represents the stages in a continuous operation and applies to process industries. Examples of equipment to be found in a vertical center are filter presses, dryers, and filling equipment.

A *horizontal center,* on the other hand, may be described as a collection of equip-

"Redcap?"

ment of similar type, cost, and construction which may be used for any of a large number of products. In a job shop, practically every cost center is of this type, perhaps comprising drill presses, lathes, automatic screw machines, and so forth.

Cost centers should be coded for convenience in accounting, whether the work of accounting is to be done by hand or by mechanical means. A code that has proved convenient is as follows:

#100-199 Service centers
200-299 Auxiliary manufacturing centers
300-399 Manufacturing department #1
400-499 Manufacturing department #2
500-599 Manufacturing department #3
900-999 General account centers

The last group should include all departments which physically occupy factory space and the expenses of which are not included in factory cost—advertising store rooms, for example, or sales offices or a research and development department or any other general administrative function.

It is desirable to compile a cost center "bible" with a separate sheet for each cost center. Information describing this center should include its name and number, its location and boundaries, the major items of its equipment, a description of the operations which it performs, and an explanation of the basis for distributing expenses to other cost centers or to products.

Check List Item #10

TYPE OF COST SYSTEM

It is probably quite unnecessary to define, for the average controller, the difference between a process cost system and a job cost system. However, a simple statement may be in order.

A *process cost system* is one in which the product is manufactured in a sequence of continuous operations. It (the product) is not handled in separate lots, but is intermingled in such a way that different lots or batches cannot be distinguished. The process cost situation also may result in the accumulation, between operations, of inventories that represent several stages of operations.

A *job cost system* is one in which the cost of the product is separately distinguishable for each lot handled. The place for the use of the job (or specific order) system is in the situation where any attempt to average the cost of two or more lots would result in an inaccurate statement of the cost of each lot, or where jobs are entirely unlike at the same or different times.

It is quite likely that one plant may have operations which suit both of these systems.

Usually, whether to use a job cost system or a process cost system is evident from the definitions of the two systems. However, the light from an accounting philosophy and a set of objectives must be shown on some supplementary questions such as those which follow:

Shall the system be based on textbook-standard or actual costs?

Bear in mind that, when textbook-standard costs are used, labor and overhead variances are usually thrown into an accounting pot by department. They are apt, therefore, to be of little use to the factory foreman. And, where unscrambling becomes necessary, more difficulties and higher-priced help will be involved than if detailed actual costs had been kept in the first place. Standard costs also present the problem of needing to be kept current, if the system is not to fall into disrepute.

Can the accounting standards decided on be used for measuring profitability?

For reasons stated above, standard costs which are reasonably representative of weighted average actual costs over a period of time are to be desired in place of textbook-standard costs for determining profitability of products.

How often should process costs be calculated?

Quantity balances for raw materials, work-in-process, and finished goods are needed monthly for inventory determination and control as well as for the measurement of performance. After enough actual cost calculations have been made to verify that standard costs for finished and intermediate products are representative of actual averages over a reasonable period of months, actual cost calculations need be made only periodically to prove that the standards are still representative.

What kind of standards should be used for measuring performance, and who could keep them up to date?

A standards organization, staffed with industrial engineers under the general direction of the manufacturing vice president or general superintendent, should set attainable standards for labor and materials. Flexible standards (standards for different levels of production such as 50 per cent, 75 per cent, or 100 per cent) should be set and used for items of overhead.

How should inventories be priced for cost purposes and for financial statements?

If one adopts the accounting philosophy of showing the facts as they are, the choice for pricing inventories for cost purposes will be the actual average cost. Similarly the pricing of inventories for financial statement purposes will be actual for raw materials and supplies, and standards representative of actual for working progress and for finished goods in process cost departments.

Is the percentage cost of sales to sales a proper measure of factory performance?

An important point to settle in the minds of top management is that the percentage of cost of sales to sales on the profit and loss statement is *not* a measure of factory performance and should not be used as such. Cost of sales percentage variations can be the result of changes in selling prices, in sales mix, in sales returns and allowances, in inventory or cost of sales adjustments, in reserves, in factory scrap or losses, in formulas for goods produced, in prices of materials used in production, and in overhead charges, labor rates, and volume of production. And, most important of all, the variations have little direct relation to the current operating period because of the effect of inventories.

Which factory cost data are needed for the financial statements?

Principally what is needed are the data for payroll, operating expenses, dollar value of raw materials and supplies inventories, and dollar values of inventories of work in process and finished goods. Of course, it is also necessary to require the clearing of all invoices for goods and services through the end of the accounting periods and of the accounting receipts when no invoices have come in.

(Continued on page 116)

BRITISH COMPANIES DISCARD QUARTERLY DIVIDENDS

"Very few companies in this country pay quarterly dividends though many do in America; one of the few British companies to use this practice is giving it up. Associated Electrical Industries is in the future to discard quarterly in favour of half-yearly dividend payments . . . AEI fully consulted stockholders before making the change. A vote was taken of the stockholders, 84,000 in number, and of these, 58,800 sent in replies. No more than 6,200 wanted retention of quarterly distributions; 37,300 favoured half-yearly and 6,700 annual payments (8,600 stockholders just did not care either way)."—Financial Notes in the December 1960 issue of *The Accountant's Journal* (London).

Check List Item #11

CODE OF ACCOUNTS

Accounts should be coded whether accounting work is done by hand or by machine. There follows a typical numbering system used for tabulating:

General Ledger

Assets: 1000-1999

1000-1099 Cash and Marketable Securities
1100-1199 Receivables
1200-1399 Inventories
1400-1480 Investments & Special Funds
1500-1799 Plant, Equipment & Reserves for Depreciation
1800-1899 Prepaid or Deferred Expense
1900-1999 Other Assets and Special Accounts

Liabilities: 2000-2999

2000-2399 Current Liabilities
2400-2499 Other Liabilities
2600-2699 Capital Stock and Surplus

Income and Expenses: 3000-9999

3000-3999 Sales Accounts
4000-4999 Cost of Sales Accounts
5000-5999 Manufacturing Expense Accounts
8000-8999 Administrative and General Expense Account
9000-9999 Other Income and Expense Accounts

Direct Expense Codes to Fit Either the 5000 or 8000 Series

100-199 Direct Labor Series
200-299 Indirect Labor Series
300-305 Employe Welfare Expenses
311-314 Federal and State Social Security Expense
321-322 Workmen's Compensation Insurance
330-350 Other Personnel Expense
401-405 Miscellaneous Traveling Expense
421-495 Miscellaneous Operating Supplies and Expenses
501-510 Fuels
511-512 Utilities Purchased
550-580 Items of General Supplies and Expenses
601-606 Taxes Other Than Income
631-635 Property and Liability Insurance
650 Depreciation
685-686 Transportation and Duties
701-705 Corporate Expenses
710-711 Contributions
720 Promotional Contributions and Fellowships
731-736 Professional Fees
740-745 Collection Expense
750 Bad Debts
800 Samples Chargeable to Expense
810-832 Different Types of Advertising
905 Direct Expense Credits
910-936 Interplant Transfer and Apportionment Accounts
961-995 Disposition of Expenses to Other Accounts

Note that one set of expenses accounts is applicable to each cost center in the company, both factory and office.

Check List Item #17

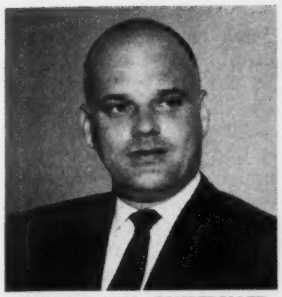
DISTRIBUTION OF FACTORY EXPENSES

The sorting out of factory overhead is performed in three steps: First, the accumulation of overhead expense by expense classification at the cost center; second, the distribution of the expenses of nonproductive service or auxiliary cost centers over other nonproductive and productive cost centers; third, the distribution of all direct and apportioned expense of productive cost centers over the various finished or semifinished products made in those cost centers. The basis for distribution of each service or auxiliary cost depends on the type of cost center. For example, individual buildings or groups of buildings might be distributed on the basis of square feet of floor area occupied by the various cost centers in the building. Steam and electric power, and water, gas, or compressed air, might be distributed by pounds of live steam, or kilowatt hours of electricity, or cubic feet of water or gas consumed by products or operations within the various cost centers.

The basis for distribution of expenses of productive cost centers depends on a number of factors. To be strictly correct, each item of expense apportioned to a productive center from service or auxiliary centers should be distributed to the various products or operations in the productive cost center on the same basis as it was incurred. For instance, if the supervision charge is apportioned to each cost center on the basis of total labor, it should theoretically be distributed from the productive center to the various operations or products in that center on the same basis. Similarly, utilities that are accumulated for each cost center on the basis of theoretical quantities of each utility used in the different products or operations should be redistributed to the different products in the cost center on the same basis.

It may not, however, be practical (or necessary, from the point of view of reasonable accuracy) to distribute separately each item of expense making up the overhead of any one cost center, because the added accuracy is not worth the additional clerical work involved. Therefore, the direct and apportioned expenses in each cost center should be studied with a view towards determining whether one or more bases should be used in allocating the expenses to products or operations. In some cases, it is more equitable to distribute groups of expenses separately. For instance, fixed expenses (depreciation, taxes, insurance, building rental, and so forth) may be distributed on the basis of machine hours—or, in other words, on the basis of a factor representing the time the operation "rented" the building and machine. Another group of expenses, such as certain utilities, repair and maintenance, operating supplies, may be proportional to production and may, therefore, be dis-

(Continued on page 148)



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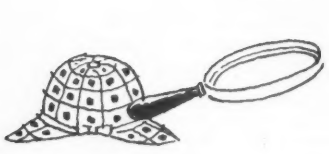
John D. Woodthorpe

Tracing Profits Overseas

. . . which may involve looking everywhere but at present profitability reports



THE PRESIDENT of an international oil company said recently: "I can't tell you what my profits are in Holland, and what's more I don't think it would be meaningful if I could. Holland is part of a whole complex of operations, and I can only talk about the profits of that complex."

This executive was thoroughly familiar with the intricacies and concepts of a world enterprise. A world enterprise in this sense means an organization involved in making or processing and marketing products within and between the borders of many countries. It also means a company that strives not for maximum profits or cash flow to one major country but to the world company as a whole.*

However, the oil company president has a problem, a problem which the concept of the world enterprise causes but does not solve, a problem that while especially evident in the complex operations of a world oil company plagues all types of world enterprises. It is also a problem that controllers of world enterprises often recognize and for which they try to compensate in their reports to top management—but they tend to do so with only partial success. Fully understanding their problem calls for fully understanding the essence of a world company.

THE WORLD ENTERPRISE

Many companies operate in a large number of countries. Often, however, they amount to little more than international portfolios of subsidiaries for which the key criterion in each case has been the amount of the remittable after-tax profits to the United States.

The maximum profit of the whole corporation has automatically been considered to be the sum of the maximum possible individual country profits. For the true world enterprise this is not necessarily so. The flow of raw materials, parts, semi-finished products, and finished products between countries to service choice markets at lowest cost can minimize or even extinguish individual country profits, and is a distinguishing feature of the world enterprise.

As an example of what this means take the case of an international company manufacturing and selling the same products in country A and in country B. Markets in both countries are expanding, country A's revenue is higher, but because of lower labor costs country B boasts greater margins. Both countries meanwhile are demanding investment funds from the parent for expansion, but the parent has limited funds. Splitting the investment in any way would permit both countries to maximize individual profits. However, the obvious correct decision, assuming transportation and tariffs do not exceed the margin differential, is to invest in country B's low-cost manufacturing facilities and market the additional product in country A's higher price markets. Because it sells a lower-cost product, country A now makes an incremental profit it could not make before. The enterprise as a whole, therefore, gains.

Probably one of the best known examples of brilliant use of this approach was that adopted by International Business Machines Corporation for its typewriter operations in Europe after World War II. To make greatest use of national skills, and to overcome currency, quota, and similar import/export restrictions, the company developed a manufacturing interchange plan. This plan called for each of several European countries marketing electric typewriters to manufacture the parts which utilized their greatest national manufacturing strengths. Each country then exported predetermined quantities of the parts it had manufactured, retaining the balance, again predetermined, for its own needs. It also imported sufficient of the remaining parts to enable each to assemble complete machines to meet its own market requirements.

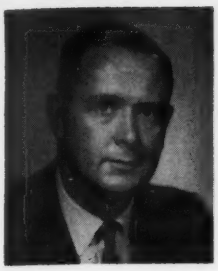
Each country was both an importer and an exporter, breaking down many of the barriers to either import or export alone. Lowest costs were incurred by utilizing natural skills and facilities, and finally each market was supplied with a product which fostered still sensitive national pride through its local assembly and partial manufacture. Thus, while individual subsidiaries might not make maximum profits, IBM as a whole did.

It is just such interrelationships that prompted the oil company president (at the beginning of this article) to say that he can only talk and think in terms of his over-all operation. However, keeping really effective track of the over-all organization demands precise knowledge of country-by-country costs and profits, and this the oil company president cannot do.

Consider these facts that affect the oil company president's operations:

His crude sources are mostly located in North America, Latin America, and the Middle and Far East; some are owned jointly with other integrated oil companies, that is, with competitors. His refineries, scattered over a dozen countries, ship oil products to dozens more. The refineries in turn utilize several different types of crudes, often from different and shifting sources. Further, the nature of petroleum products is such that if one is required, others will have to be manufactured, too. So, a refinery in Italy may ship gasoline to Germany, fuel oil to Holland or Scandinavia, and residuals to England or wherever there is a market.

* "Creating a World Enterprise," Clee & DiScipio, *Harvard Business Review*, Nov.-Dec., 1959.



JOHN D. WOODTHORPE, *an associate with McKinsey & Company, Inc., New York, is a specialist in international organization and financial controls. He has worked with the top managements of leading corporations in diverse industries both in the United States and abroad. Prior to joining McKinsey in 1956, he was manager of the New York office of Cooper Brothers & Company, London chartered accountants. He is a graduate of Cambridge University and a chartered accountant. In the course of recent client engagements Mr. Woodthorpe found a growing number of executives were concerned about operating-oriented reports on overseas investments and earnings when they found their standard report systems proving inadequate. He believes this article can be of value to our readers who may be, or soon will be, wrestling with this problem.*

ARBITRARY COSTS, TRANSFER PRICES

The problem is further confused by the fact that the industry has yet to find anything better than the arbitrary allocation of joint costs to arrive at individual product costs. Through governmental and trade agreements, crude and products are transferred between countries at "prices" based upon general industry costs and patterns of operations. For example, products imported into West Africa are paid for at so-called parity prices. In this case the price is based on the assumption that the industry ships products from the Netherlands West Indies refined from Latin American crudes. In fact, West Africa may be supplied by an individual company with products processed from Middle East crude at one of its European refineries in, for example, Italy. West Africa is not overtly aware of the real costs behind the products it imports. It must treat parity price as if it were real cost.

Against this background the president's problem takes on very real dimensions. For example, he has to determine these factors:

1. What is the cost of his crude? Should he include the income taxes he has to pay to the local governments when he takes his crude out of the country where it is located? And what is the real cost of the crude he buys from his joint ventures? Won't this be reduced by the dividend he gets from the venture? But doesn't this depend upon the volumes his partners take from the venture, too?

2. Where in the world can he best locate refineries that minimize processing costs and transportation costs?

3. What markets should he serve, recognizing that he probably will not sell all the products refined from one barrel of crude in any *one* market? So how can he arrive at profitability? Is it tied to the market for a product or the combined markets for all products from a barrel of crude? And what about markets that sell products from several refinery sources?

4. How can he minimize taxes, taxes which are often paid on "profits" arising from the simple transfer of crude and products between countries at industry prices, before any actual sale is ever made? To make matters worse this so-called "profit" may be greater than the final profit that arises when the crude or products are eventually sold in the market place.

What has happened to the oil company chief is that his operations have become so large, so involved and so interdependent that the profitability of individual markets has been obscured, and only total profits are apparent. He fully understands the concept of the world enterprise but, because he does not know the location of his profits, cannot fully apply it. In some ways the oil company's situation is analogous to a multiplant United States manufacturing company that knows the total cost of its product but not the cost of its components; that knows its total profits but has no inkling of what sales costs are or in what market areas it makes its greatest margins. To ensure making the best possible investments and expansions a company must identify its actual and potentially most profitable areas of operation, but the oil company has lost sight of how to do so.

THE SEARCH FOR PROFITS

At the other end of the spectrum the decision whether or not to invest in overseas facilities in some industries can be quite simple. For many food companies, for example, it is a decision that will almost certainly be based largely upon comparing return on investment in the United States and in each overseas market. Each major market is likely to be served by its own plant which in turn purchases its raw materials locally, the self-contained nature of each operation greatly simplifying choice between alternatives.

For most industries, however, the decisions are not so clear cut. Further, as more and more companies become established in more and more countries these decisions become ever more complex and interrelated. Continuing changes in world tariffs, costs, and markets virtually force the managements of international companies to adjust operations and to seek extra profits via intercountry shifts of products and investments.

The key to successful world-wide operations is a precise knowledge of where all profits arise. And here, the very complexities of world enterprise tend to obscure the picture, not just for oil companies, but for all companies. You see this best by looking at the contradictions and interrelations between a company's statutory and operating organization and in the flow of goods and dollars through these organizations—regardless of industry.

STATUTORY ORGANIZATION

Look at the legal ownership pattern in a world enterprise headquartered in the United States and you may find a Swiss holding company technically owning a company's manufacturing facilities in Germany, France, and Africa, a British company owning plants in England, Singapore, and Australia, and a Bahamian corporation owning several properties in South America. Look again two years later and some of these holdings may have switched ownership between holding companies or to the parent organization. In the world enterprise the purpose of the statutory organization is to maximize profits and cash flow and to minimize legal restrictions including taxes. Its organization is complex, constantly changing in response to shifts in trade or legal rulings, and bears little resemblance to the actual operating organization. An international company's Venezuelan subsidiary, for example, may be owned by a Canadian statutory parent. However, the operating head of the Venezuelan company does not report to Canada; he reports to the head of Latin American operations who in turn reports to New York.

Careful study and continual review of a company's statutory structure can pay off many times over in dollars saved. By moving the paper work aspects of one function to a tax-sanctuary country, one large company saved $1 million in tax costs per year. However, though they are highly important, profit and loss statements for each statutory entity are arbitrary "paper" figures. They bear little relation to actual costs and operating profits to the company as a whole.

For example, company B has several

(Continued on page 122)

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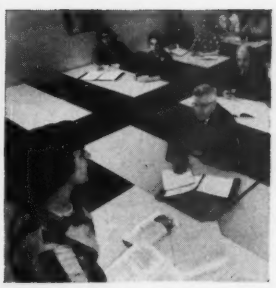

An IBM programmer teaches customers the latest programming techniques.

statutory operations on the Bahamas. One is a Bahamian corporation through which it markets products; this corporation is a subsidiary of a tax-haven corporation in Canada. A second Bahamian corporation is itself a tax-haven corporation and re-exports products to other countries. All products are imported from the parent, a Massachusetts corporation which has sold the products to the first Bahamian corporation. Finally, there is a third Bahamian corporation which handles the self-insurance of the group. It is a direct subsidiary of the parent. Reports of these three statutory entities give no measure of the profitability of the Bahamian market; further analysis is required. The same holds true for literally hundreds of statutory reports from hundreds of companies—and unfortunately it holds true for operating reports, too.

OPERATING ORGANIZATION

Operating reports which follow the normal principle of reporting by responsibility on a country-by-country basis are the most common form of report. At the country level, world enterprises normally have a single executive in charge. His operation may vary from a fully integrated and essentially independent enterprise to a conglomeration of largely unrelated functions. From the host country's point of view, profit and loss reports on a local operation form at the very least the basis for taxation, and provide a realistic measure of the corporation's contribution to the country's economy. But from the parent companies' points of view the country presidents' operating results may be largely meaningless.

For instance, country A is billed for goods received from country B, where they are manufactured and are currently marked up by 25 per cent. During the course of the year the export price to country A had been subject to renegotiation by B's tax authorities and had been increased from a 20 per cent markup as a result. Furthermore, country A normally re-exports 40 per cent of its purchases to country C, with which it has favorable trade relationship. However, this year country C took only 15 per cent, as it was forced to impose import restrictions to preserve its balance of payments. The results of country A's operations for the year show a small profit. But this profit has been largely influenced by higher import costs and lower volume because of country C's restrictions. Neither of these factors is under A's control, and the result is a totally inaccurate picture of the real profitability of A as a market.

Again, country B imports its products from country D. During the course of the year there is a three-month strike in country D which paralyzes production. As a result, country B imports from country E sufficient products to meet its order backlog and for a time suspends further sales activity. Owing to the loss of volume and the higher cost of products from country E, a loss is sustained by country B for the year. Obviously B as a market has not changed, but this is what on the surface appears to have happened.

It is obvious from the above that country "profits" can be meaningless. The fictions of transfer prices, the incidence of taxes on "profits"—which, although profits from a country point of view may in fact be unrealized from the enterprise's point of view—and the lack of control over the factors that govern "profits" all tend to make a farce of country profits.

REVENUE, WORK, AND FISCAL CENTERS

How then can a company keep track of intercountry costs and profits? The answer lies in somehow cutting through the arbitrary and fictional cost picture created by "normal" statutory and operational figures. Some controllers have tried to bypass the problem by preparing special explanatory or corrective reports that give top management some approximation of the over-all flow of profits. Such a system is useful but flawed. If top managers try to dig into the details of these special reports they almost immediately become enmeshed in a confusing mix of highly technical details—and line managers tend never to see them at all.

What both top managers and line managers need is a system of reports which accurately reflect actual operations and which they can use to help them think through the evolutions and interactions of their business. One system that has been found effective follows. Far from being revolutionary in concept, its strength lies in its reversion to basic principles. The first step in the process is to break down each country's operations between revenue centers, work centers, or fiscal centers.

Revenue Centers

Revenue centers are where revenue finally accrues to the enterprise. They are the points at which sales are made to customers, as distinct from intra-enterprise transfers between companies or countries. The latter result from moving products through the system to the point where sales can be made. Although from a country point of view these transfers to another country result in revenue, they are not revenue to the enterprise. Cancelling out these "revenues" and their offsetting "costs" is a normal step in the preparation of any consolidated financial statement. Determining real revenue is also the first step towards establishing the real profitability of individual markets and products.

Work Centers

Work centers are those locations which add value to goods either by processing, assembling, distributing, and marketing them or by providing services. The costs of these centers added to any raw material costs become the costs to the enterprise of goods or services sold.

Fiscal Centers

Fiscal centers are those locations where appropriations of earned or anticipated profits are made without any value being added to goods or services. These appropriations may result either from the syphoning off of profits by levying a service charge or from taking a markup on goods. Or they may result from the payment of income taxes imposed by the country in which the work center or revenue center is located.

PROFITABILITY BY PRODUCT

Having identified the revenue, work, and fiscal centers in the world enterprise operations, the next step is to build up profitability by product for each revenue center:

1. Identify revenue, in total and per unit, for each market by product. Obviously, this will be a simple step for those few industries whose products are marketed at the same price world wide.

2. Deduct from revenue the costs incurred in making the sale and moving the product from the actual point of manu-

(Continued on page 159)

RELATED READING

Against losses due to three of the biggest dangers confronting U.S. business overseas—currency inconvertibility, expropriation or confiscation, and war—the Government's Investment Guaranty Program offers a form of protection suited to the needs of some firms. Even before the Cuban seizures more than $400 million of American business investment in other lands had been covered under the Program but interest in it has stepped up considerably since the Cuban crisis (refer to page 146).

The Influence of EDP on Internal Control

Robert J. Fitzpatrick

The development of electronic data processing has been the first major step taken to reduce the increasing volume of paperwork and the mounting number of clerical employes in the office. Success in breaking the paper barrier, however, has created a new problem for the controller and accountant: maintaining sufficient internal control.

The classic concept of internal control has long depended on the principle of the division of duties in order that each employe's work may be checked or controlled by other employes. *What does the controller do to provide adequate internal control, however, if the principal accounting employe is a machine?*

FIRST OF ALL, although electronic data processing has taken over many duties previously performed by people in the accounting and other departments, this fact does not mean that the separation-of-duties principle cannot be employed. Since the data-processing center is staffed by people and since it receives its information from other sources and also delivers the results of its operations to other departments, personal or organizational controls may still be used quite effectively.

Data-originating groups such as the payroll and sales departments may establish their own controls over data before they are released for processing. The EDP center itself is staffed with various personnel such as programmers, console operators, clerical assistants, etc., very likely headed by a center director, all of whom, in turn, may provide checks on each other. Finally, an outside control group such as the internal audit staff or a special EDP control group may be established to supervise and audit the service center and help insure that adequate internal control is maintained.

In addition to these personal controls, however, there is still another safeguard: having the electronic computer audit itself. In the new language of electronic data processing these self-checking procedures are known as "machine controls." These controls actually fall into three fairly broad categories, as follows:

1. **Programmed controls**—these are the controls which are put into effect by the specific instructions of the user of the equipment;
2. **Checks in central processing unit**—these are mainly checks which are built into the equipment by the manufacturer; and
3. **Checks in peripheral equipment**—controls for supplementary equipment may utilize either built-in mechanical checks or the separation-of-duties principle, or a combination of both.

PROGRAMMED CONTROLS

Programmed controls are those which are selected by the user of the electronic system and are incorporated in the program as part of the instructions prepared for the various data-processing operations. The general principle is to perform the operation in two different ways at some point in the program and then compare the results. If the results agree, then it is assumed that the computation was correct; if they do not agree, then it is assumed that an error has taken place. In the event of agreement, the processing operation will continue; if the results are incorrect, then the machine must be told what steps to take.

Since these controls are part of the program, the appropriate instructions used for control purposes must be included in the program when it is originally set up because any changes in the program made after it is once in operation may be difficult and expensive.

Moreover, programmed checks may vary with each particular application. In the case of processing inventory data, for example, the principal programmed check may be a comparison and a check for proper use of serial numbers assigned to parts (a sequence check). In the case of a payroll application one control that may be used is the limit check. If gross pay for one employe exceeded a set maximum, the computer would print out the item for verification.

Programmed checks would include a number of controls, as follows:

Record counts. The term "record" in the technical meaning used here refers to all the data relating to one account or to one transaction. An example would be the total of all the factory expense accounts or records. The total would be counted when the balances were originally transferred to tape, and the total number of these accounts would be inserted as the last record on the end of the tape "file." After each processing run, the computer would check to see that all accounts had been included in the revised or up-dated file. In inventory applications a predetermined count of the number of punched cards or transactions may be made. This total would serve to act as a control over subsequent processing of the inventory. The maintenance of these controls and reconciliation of any errors would be handled most effectively by someone outside the direct operations of the EDP center.

Hash totals. These are also known as "checksums." The technique here is to add figures together arriving at a total which has no significant meaning other than that of agreeing with some predetermined control figure. Examples of hash totals would be the sums of employe serial numbers, account numbers, unit prices,

• *Mr. Fitzpatrick, chairman of the Accounting Department, Bellarmine College, Louisville, Kentucky, since 1953, was formerly associated with Lybrand, Ross Bros. & Montgomery as staff accountant; the Department of State as vice consul at Caracas, Venezuela; and Brown & Williamson Tobacco Corporation in the export finance department.*

He is a member of the American Institute of Certified Public Accountants; the American Accounting Association; Kentucky Society of CPAs and the National Association of Accountants. He has had several articles published in professional accounting magazines.

etc. Use of the hash total would help to ascertain that total units had been included, and that the related data (account numbers, etc.) were read properly. Hash totals, however, have this disadvantage: if a mistake has been made it is necessary to go over the whole block or section of data being processed in order to locate the error.

Proof figures. This control is merely a cross-checking technique similar to the device used on work sheets except that arbitrary figures are used in addition to actual figures. As an example, each item of inventory is calculated first at *actual* cost per unit and also at an *arbitrary* or "proof cost" per unit. Then, actual cost is added to proof cost to arrive at an artificial total for checking purposes.

For *each* inventory item the following calculation would be made:

Quantity × actual cost per unit = actual cost
Quantity × proof cost per unit = proof cost
Total = Arbitrary check figures.

The aggregate of actual cost dollars for all inventory items plus the aggregate of proof costs should, therefore, equal the aggregate of the arbitrary check figures.

Reverse multiplication. In this control technique an ordinary multiplication is made arriving at the usual product. Then the multiplication is made in reverse and the product previously arrived at is deducted. If both computations are correct the result of the second calculation should be zero, as follows:

If $A \times B = T$
then, $B \times A - T = 0$.

Limit check. This is one of the techniques used for control by exception. It may be ascertained, for example, that certain quantities or amounts should fall within a certain range. When they exceed these limits the exceptional items may be printed out for further investigation. For example, it may be known that inventories of any class of small parts should not exceed $20,000. Any inventory items exceeding this amount, therefore, would be listed in hard copy for later checking.

Cross footing balance checks. These are sometimes referred to as "proof totals," and are similar to the balancing technique used on work sheets. For example, in the case of each individual pay check

Gross pay — detailed deductions = net pay;

therefore, if the individual figures are accumulated in various registers,

Aggregate gross pay — aggregate detailed deductions = aggregate net pay

Check points. The purpose of using check points is to facilitate the location of errors at relatively short intervals throughout the program. In this way, a program may be run, verified in steps, and corrected, if necessary, without having to reprocess a long series of transactions. Depending upon the type of operation involved, the check point may require from a fraction of a minute's running time up to 15 minutes or more; however, the use of the check point is more common where running time is not unusually short.

Self-checking numbers. The basis of this technique is to make some predetermined calculation with a given figure, using the result as a "check digit." The original figure followed by the check digit would be a self-checking number. This checking procedure may have several approaches. One, as an example, is casting out nines.

The check digit for the figure 12345 would be computed as follows:

(a) Compute the sum of the digits in the number stated: 1 plus 2 plus 3 plus 4 plus 5 = 15
(b) Deduct 9
(c) The check digit is, therefore, 6.

The self-checking number would then be 123456, the last being the check digit.

Sequence check. The computer may be programmed to ascertain that data are included in proper numerical or alphabetical sequence. Account numbers, for example, may be checked to see that they are listed in the proper numerical order. Customer lists, on the other hand, may be checked to ascertain that they are in alphabetical order. If an item is out of sequence, the computer may go into a correction routine or may be instructed to list the exceptional item and go on to the next operation.

Label check. This is a technique to avoid putting the wrong tape into the computer. The visual label on the tape reel and certain mechanical devices may be used to obviate (a) erasing data stored on tapes, and (b) putting the wrong tape in the computer. In addition, a "tape reader message," which would enable the computer to identify the tape, should be written at the beginning of the tape in magnetic code. This precaution would serve as an internal check against manual processing procedures.

After the errors have been discovered by the various programmed checks, the question may arise: *At what point in the operative process could the corrections be made most effectively?*

General Electric's experience at Appliance Park is that much time was wasted when corrections were attempted through the control console. This start-and-stop procedure was especially troublesome since the program had to be returned to an earlier starting point and recalculated. General Electric found it more satisfactory to treat errors and differences as a routine listing for manual editing and later correction.

This review covers the principal types of programmed checks included in the form of the user's instructions placed in the computer. As was mentioned earlier, there are certain built-in checks which have been put into the machine by the manufacturer. For a better understanding of the internal control features offered by the electronic data processor, these built-in checks will now be examined.

CHECKS IN CENTRAL PROCESSING UNIT

Personal or organizational controls using the separation-of-duties principle help to assure that the data handled outside the computer is subject to internal control. While the data are actually being processed, programmed checks help to provide further internal control and mechanical controls, or checks built in by the manufacturer, further complement the internal control function at the processing level.

Built-in controls include the following types of checks:

(Continued on page 126)

100 PER CENT CAPACITY INCREASE

Renters of Univac model I File-Computers have recently been offered a chance to double the data-processing capacity of their present systems at no increase in rental charges. The manufacturer has announced willingness to replace the old magnetic storage drum with a new magnetic core memory which is practically the same as that of the large-scaled Univac III computer system. The replacement operation can be performed over a weekend, according to the manufacturer, and it obligates the renter only to a two-year extension of the existing rental contract starting with the date of the installation of the new core.

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The parity bit. Assume that an electronic system uses magnetic tape with a code of binary digits, each digit being represented by a single magnetic charge or "bit." Either as the result of human error or mechanical error it is possible for a bit to be lost or for an additional or superfluous bit to be picked up on the tape. Losing a bit, for example, would have the following effect:

	Binary Value 8 4 2 1	*Decimal Equivalent*
(a) Assume that a "5" has been entered on the tape at the input stage. In binary this would be recorded as:	1 0 1	or 5
(b) If the last "1" is dropped through a flaw in the tape, then the tape will show:	1 0 0	or 4

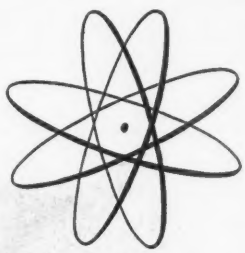
It is also possible, through error, for an unwanted bit (or 1) to be inserted on the tape, with a resulting change in the value of the binary number recorded.

To reduce the chance of either type of error taking place, an extra bit, known as a parity bit, is added to each group of information bits or binary digits. As the data are listed on the tape, the number of 1's used in each character is counted. If the result is an *even* number of 1's, the extra or parity bit is added in order to make the total number of 1's odd. In the case of the illustration above, for example, the 5 with a parity bit would be shown as 1 0 1 *1*. The first three binary digits, including two bits, or 1's, represent the arabic numeral 5 (4 plus 1). The last 1 is the parity bit which makes the total bits, or 1's, uneven (a total of 3). When the character is read in a later processing operation, the number of 1's is again counted. If the new total is odd, then it is assumed that the number read is correct. If the total number of bits (1's) is even, then that is an indication that an error has taken place. At this point the machine may be instructed to re-read the data to see if they have been read correctly. If the error is still not detected, the machine may be instructed to stop or to record the exception and to go on to the next step.

Another technique which may be employed is "two-dimensional" bit parity, as contrasted with the "one-dimensional" (one line) approach described above. This further development of the parity bit principle may provide for location and automatic correction of errors. In the two-dimensional check, the odd bits are added both up and down in a predetermined block or checker-board pattern of data. In this way, the figures in the block will add to an odd number of bits, both vertically and horizontally. The dropping of a bit, therefore, will result in two intersecting columns (one down and one across) which will add to an even number of bits, and thus will pinpoint the error. In this case, the computer, having located the error, will correct itself.

Double-track recording and reading. Under this checking technique each character is recorded twice on two channels of the same tape. A later reading and comparison of the data will turn up errors resulting from the deposit of dust particles or other flaws in the tape.

Test problem. *After the EDP program has been in operation for some time, how does on auditor determine that the system is following the programmed instructions correctly?* One approach is for the auditor to secure a test deck of punched cards containing sample transactions which would affect all steps of a given program. The correct results would have been worked out in advance. The test deck would then be processed on the EDP equipment under the auditor's control and the results compared with the answers



previously produced. If the program used in the computer has been changed in any way, a discrepancy in the results of this test would alert the auditor to the fact that a modification has been made in the program—either intentionally or unintentionally.

Duplicate circuitry. Some EDP equipment may have the computing function duplicated in order to check the accuracy of the arithmetical results. The same problem is worked on "parallel arithmetic circuits," and the answers are then compared. If the results agree, then the computer accepts the work as correct and goes on to the next step.

Double arithmetic. With duplicate circuitry two different parts of the same computer make separate computations of the same arithmetical problem. With double arithmetic, the same arithmetical section of the computer works the same problem *twice,* but in succession. The results of each computation are then compared for correctness.

CHECKS IN PERIPHERAL EQUIPMENT

The five controls mentioned above (parity bit, double-track recording, test decks, duplicate circuitry, and double arithmetic) make up the principal checks built into EDP equipment by the manufacturers. In addition to programmed checks and the built-in checks which help to promote accuracy of the operation of the computer itself, there are also certain checks which may be used to control the operation of the supplementary equipment. These controls, then, would affect what is often referred to as "peripheral" equipment, that is, mainly the input and output devices.

The checks generally employed in this area are as follows:

Verifying unit for input. Perhaps the most important of the peripheral checks is a review of the input data. The computer itself makes very few errors and once the data have been properly entered, the possibility of a mechanical mistake is indeed very slim. In fact, it may readily be said that in the routine handling of information human beings generally make more errors than machines. If the operator puts the wrong information into the electronic computer, all that the EDP system can do is to compute the wrong answers faster. Checking the correctness of input data, therefore, is extremely important.

The most common method of checking input data for EDP systems employing punched cards is to have the record verified by two operators. The first operator punches the data from the source document into a punched card. The second operator places the resulting punched card into a "verifier," and types the same information from the source document into the "verifier." If the information keyed-in on the verifier does not agree with the card, the machine locks up, and the discrepancy must be analyzed and corrected before the card is processed further. The same checking process may be used with punched tape.

The disadvantage of this process is that it requires twice as many operator-hours at the input level. Moreover, the verifying operation alone will not necessarily catch all errors on the source documents.

Visual examination. The input device, such as a paper tape input, in addition to recording the holes in the tape, may print out the input data. In this instance, the typed copy may be compared visually with the original source document. This check, however, is not quite so effective as the use of the verifying unit.

Two reading stations for checking card input. Where punched cards are used for recording original data as the "primary" input, the cards, as indicated earlier, may be converted to magnetic tape for direct input into the computer. Most card-to-tape converters read the punched card twice

(Continued on page 150)

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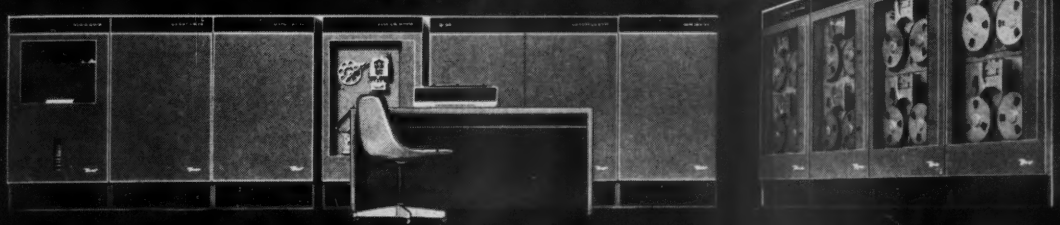

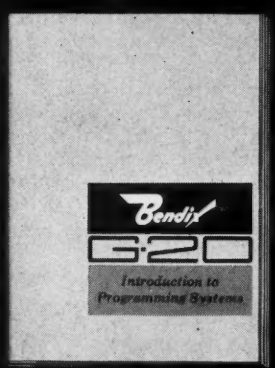

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• *Inflation, along with the cold war and higher taxes, marked the ten-year period of the 1950's. Life insurance companies especially, with their fixed premium incomes, felt the squeeze of constantly increasing salaries and expenses. Yet, surprisingly enough, many companies were able to reduce premium costs by increasing policyholders' dividends* • *How were they able to do this?* • *Favorable interest earnings and a low mortality rate may have helped, but holding the line on expenses played a large part, too.* • *Through expense controls, staff training, improved procedures, and the introduction of new equipment the companies were able to beat the squeeze. While the over-all cost-of-living index for the United States was rising 22 per cent during the period in question, the ratio of operating expenses to total income for all United States life insurance companies increased by less than five per cent.* • *Following is a brief description of the steps which one medium-sized life insurance company took, through budgetary control, to keep expenses within reasonable bounds.*

Budgets and Home Office Expenses • Robert M. Tracy

NATIONAL LIFE INSURANCE COMPANY is a 111-year-old company situated in Montpelier, Vermont, a city of approximately 9,000. Its assets are in the neighborhood of $830 million and total income exceeds $134 million. At the end of 1960, it had approximately 570 home office employes servicing, in addition to its investments, some $2.75 billion of life insurance in force, with no group, industrial or accident and health business included in the total.

Ten years ago, following the election of a new president, a budgetary control committee was appointed, consisting of the secretary, actuary, and treasurer, along with the director of selection, the heads of the personnel and purchasing departments and two persons from the agency department. This composition of membership proved a wise choice in that it represented heads of departments with the most personnel and people from departments where the larger expenditures were made.

Every member of the committee took an active part in its work. Within a few months they had reviewed all the major expense accounts, studied a great deal of the available published material on budgeting, and held several meetings, exchanging information and ideas.

At the outset the committee arrived at several conclusions:

1. The department heads must be sold on a budget. They must believe that its adoption would be helpful to the company and to them. They must also be convinced that its operation would not hamper them in the efficient operation of their departments.
2. The budget should be set up on an annual basis, with progress reports to the department heads scheduled at quarterly intervals.
3. The value of the budget would be increased if it could be tied to costs per unit of insurance or investment items handled, for comparison from year to year.
4. It should be recognized that some expenses can be controlled by management to a greater extent than others, and some expenses are subject to little or no control (taxes, for example).
5. Despite the fact that the budget for the first year would be extremely crude, it ought not be changed during the year. Poor guesses or emergencies might—in fact, did—cause some departments to exceed their budgets. But the Executive Committee recognized that honest estimates, made without previous budget experience, had resulted in this situation and, following satisfactory explanations, approved the few deficiencies which occurred.

Preparation of the Budget

Certain expense accounts, such as salaries, overtime, telephone and telegraph, books and periodicals, and travel and entertainment were the direct responsibilities of the department heads. With the assistance of a budget clerk, budgets for these expenses were prepared by the departments during the last quarter for the next year. Nine months' expenses for the current year were available for use as a base, together with the best forecasts which could be made on the business expected in the following year. The budgetary control committee reviewed these budgets and heard the reasons for major variations contained in them. Late in December the department heads were permitted to revise their figures to reflect any major changes deemed necessary at that time.

Other expenses, such as hazard insurance, company dues, contributions, officers' salaries, advertising and rent were projected by the budgetary control committee on the basis of past experience and all other information obtainable.

Inasmuch as field expenses, including commissions and expense allowances, are part of the company's expense budget, a rather detailed investigation was made of the possibilities of projecting these items. Obviously, first-year commissions and expense allowances must be related to projections of new business. During the past few years, this area has given rise to the most difficulty in the company's budget set-up. But, since the discussion here pertains to home office expenses, references to field expenses will be only incidental to the main subject.

Salary Expense

It is almost inevitable that any budgetary control committee will reach the conclusion that the greatest opportunity for expense savings in a life insurance company is in labor costs. With the exception of federal income taxes, employe salaries loom largest in expense analyses.

Generally speaking, the salaried staff of an insurance company may be likened to a group of governmental civil service em-

ployes. Compensation is modest; hours are reasonable; tenure, except for misbehavior, is practically guaranteed; and working conditions are good, including holidays, paid vacations, sick leave, and retirement provisions. Most employes measure up remarkably well and constitute the backbone of any life insurance home office. Much of the minor clerical work is performed by young female high school graduates, who spend a few years with the company before leaving to marry and raise families.

Employe costs start with salaries. When fringe benefits, the costs of office space, desks, tools to work with, and supervision are added, the result is an expense of some magnitude. It becomes axiomatic that efficient operation means using the staff to the fullest and best advantage.

The following few steps taken by the company seem to have been helpful in maintaining high standards of performance by its staff:

1. Taking advantage of an increase in the number of applicants for employment, by becoming more selective in hiring new employes.
2. Educating supervisors through temporary assignments in other sections or divisions. This practice has resulted in a broader knowledge of the company's business and procedures on the part of the visiting supervisor and has, in addition, developed second-line supervision while the visiting supervisor was away from his desk.
3. Instituting a training-within program for recent college graduates in the auditing department—and later expanding it to include other departments.
4. Working closely with the planning department in labor-savings procedures.
5. Maintaining closer supervision of overtime work.
6. Requiring in some detail reasons for requests to hire additional employes.
7. Rewarding above-average performance with above-average increases in salary.

The success of the program appears in a study of the results of the decade of the fifties. During this period, the number of clerical workers increased by six per cent and their total salaries increased 54 per cent while the company's assets were increasing 74 per cent and the insurance-in-force account rose 125 per cent. Where total salaries paid rose 54 per cent, as stated above, the average salary increased by 45 per cent. This compared with an increase in the cost of living for the same period of 22 per cent.

Other Expenses

The following paragraphs briefly describe accounting and budgetary control procedures for other significant items making up the balance (roughly 60 per cent) of expenses that are more or less controllable by management.

Rent: While a large part of rent expense is the amount the company charges itself for use of its home office building, a portion represents payments made on behalf of a few investment branch offices located in other cities. Floor plans of the home office building were obtained, and the area occupied by each department was correlated to the number of employes and the space needed for special equipment and files. Rent was allocated between departments on a space basis for budget purposes. Since the company's lack of space became a problem during this period, the study was helpful in reallocating quarters—in one instance, one of the larger departments was moved to another floor.

Rents paid for investment office quarters were matched with space occupied and reduced to dollars per square feet. This figure was then compared with the going rate for similar space in the same city. The area in square feet was also correlated to the number of employes, taking into account special equipment and files.

Telephone and telegraph: After the taking of detailed inventory of all telephone equipment in the building, the need for each telephone was made the subject of fresh questioning. A new telephone could be installed only after establishment of definite proof of its need.

Concerning toll calls, rate structures were surveyed to determine whether or not telegraph service might be cheaper and as satisfactory in some instances. This was found to be true. The home office prepared and released to the field publicity concerning the speed and reliability of air mail.

The committee was curious concerning the possible reaction of a department head to a list of toll calls charged to his department during a month. They found that the telephone operator kept a record of all toll calls. Each month these calls were tabulated by department, showing the date, person calling, person and city called, and the charge. A typist prepared the lists during slack periods and forwarded them to department heads. They served to keep them informed of their departments' use of the budget for toll calls and of who made the calls.

Postage and express: These items appeared to be fairly well controlled with an efficient mail room, a postage meter, and the inclusion of all items directed to one destination in a single large envelope. One employe made a study of the rates charged by parcel post, express, freight, and truck. Each appeared to have advantages under certain circumstances. It was determined, for example, that bulk shipment of printed matter could be made to certain cities by truck at substantial savings. These comparative rates have been tabulated and are checked for all bulk shipments.

Printing, stationery and supplies: It is probable that most companies have well-organized purchasing departments with quality standards and order requirements similar to the ones which the committee found. Through the work of the planning department, savings were made possible here by simplifying or consolidating forms, eliminating names and titles on letterheads, and making greater use of the company's reproducing equipment to print forms and reading material previously sent to printers. A real effort was made to persuade department heads to anticipate needs in advance, in order to facilitate work programming and avoid bottlenecks. Approval of requisitions for supplies was delegated to selected supervisors or department heads with an explanation that an oversupply leads to waste and presents a storage problem.

This account tends to fluctuate because of inventory. However, investigation disclosed that an inventory control would be more expensive than the benefits to be derived from it warranted.

Dues: A careful review was made of all dues paid by the company. The larger payments were found to be made to organizations supported by the life insurance industry and to be

(Continued on page 134)

ROBERT M. TRACY, a CPA for 10 years before joining National Life Insurance Company in 1940 as assistant to the treasurer, moved successively to assistant treasurer, treasurer, treasurer and controller, and vice president and controller, his current post. He is a member of Controllers Institute, AICPA, AAA and IIA. He holds a B.S. degree in commerce and economics from the University of Vermont. This paper was presented at the Life Insurance Round Table at the 29th Annual International Conference of Controllers Institute.

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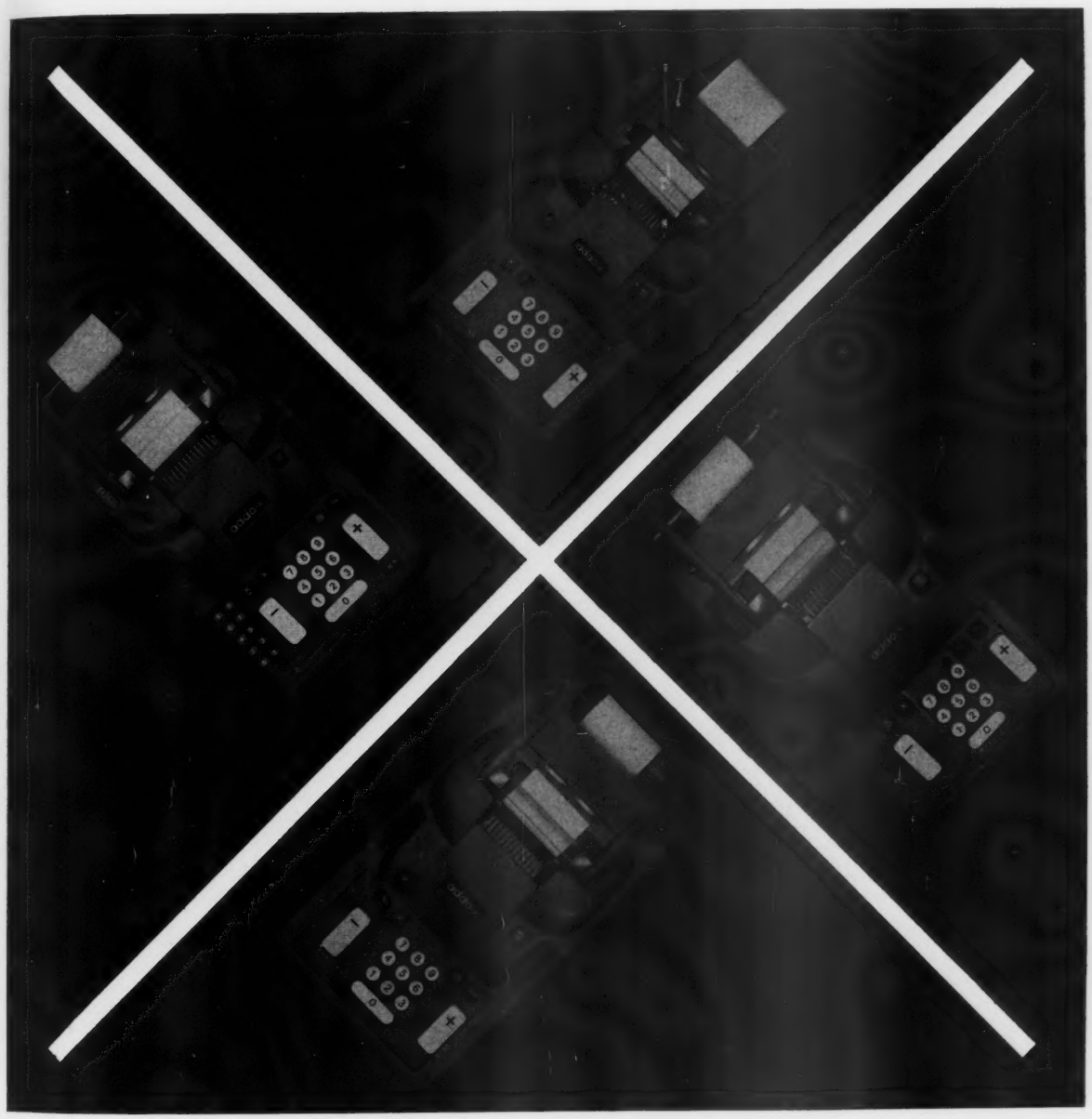

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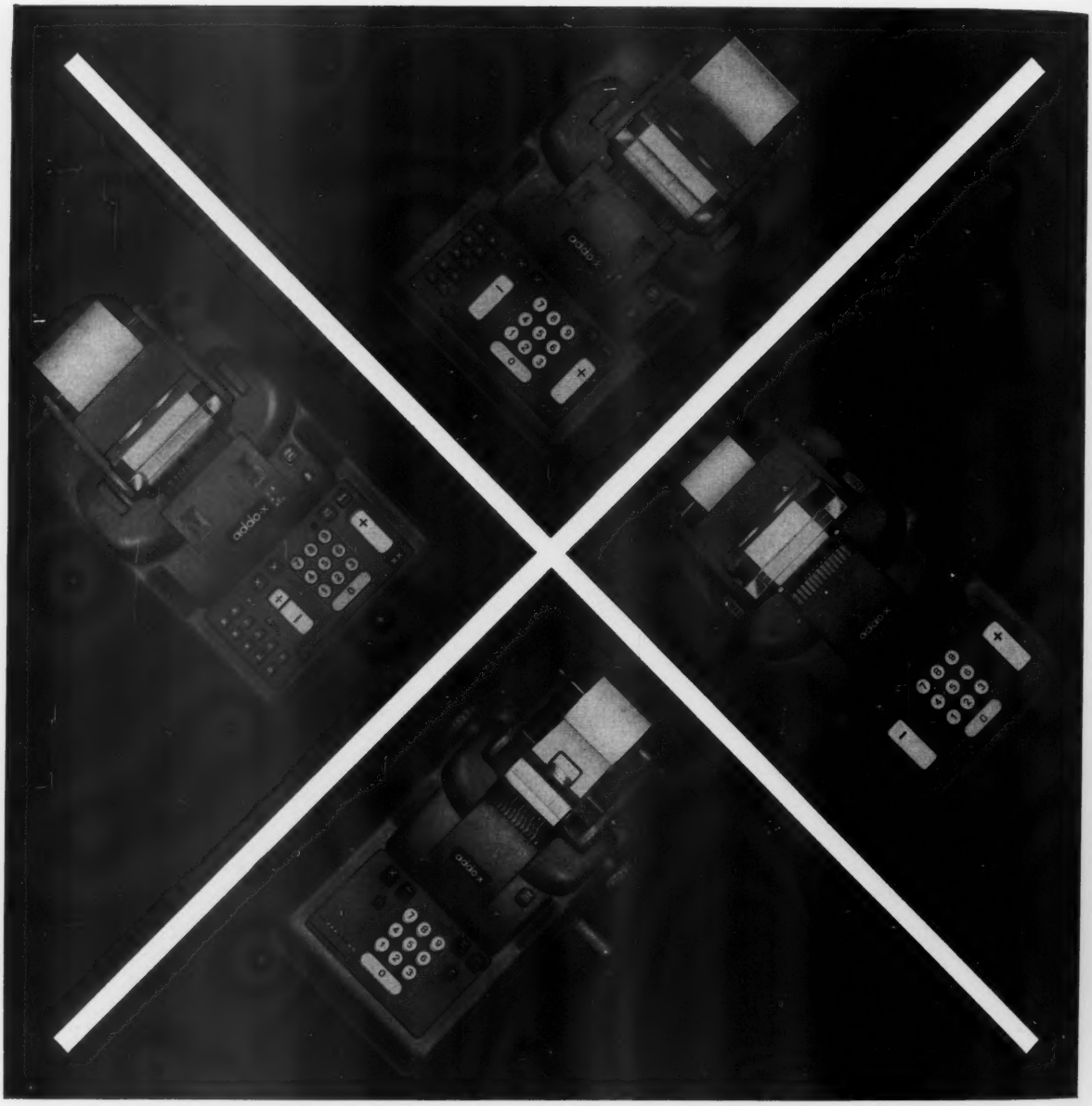

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determined by established computations. The benefits of membership received careful consideration, and in some instances, it was decided to discontinue membership. Dues continue to be reviewed each year and must be approved by the Executive Committee.

Travel and entertainment: A somewhat extensive guide to travel was revised to take into account current conditions and to incorporate additional suggestions to travelers. Located, as the company is, in the extreme northeastern part of the country and doing business in all of the United States, it has in travel expense an important area to control. A department head must sanction any trip, and attendance at meetings or conventions requires approval in advance by top management.

Whenever possible, the traffic manager, thoroughly versed in company policy, arranges for transportation and hotel space. The traveler is provided with an expense book and is expected to make separate entries each day for principal items of expense, such as hotel, meals, transportation, telephone calls, and itemized incidentals. He must produce vouchers for hotel bills and other expenses for which receipts are customarily given. Expense books are approved by a department head and the traffic manager, and finally authorized by an officer designated to handle all travel expenses.

Entertainment must be approved in advance by a department head, and the voucher for the expense is processed in the same manner as travel expense.

The committee found that by explaining in some detail the exact policy of the company with reference to travel and entertainment there was much less misunderstanding than when the policy was vague.

Advertising: This expense turned out to be a real challenge to the committee, since at best, even with a return-coupon response, it is difficult to prove or disprove the value of advertising. After careful consideration, however, company advertising underwent a number of changes. Some media were discontinued; instead other less expensive avenues, including direct mail, were used; and the advertising budget was cut in half. This budget continues to be one that the Executive Committee, following proposals by the advertising manager, reconsiders at some length each year.

Real estate expenses: The bulk of these expenses results from the operation of the home office building under the supervision of the building maintenance department. The superintendent of buildings prepares a budget which is carefully reviewed and costs of operation are compared with figures supplied by the company's investment department to make sure that they are reasonable.

Contributions: Requests for contributions come from a variety of sources, many of them accompanied by pressures of one kind or another. Contributions to the Life Insurance Medical Research Fund and similar organizations appear to be justified on the basis of ultimate benefits to be derived by the company's policy holders. Other organizations seem to be borderline, and many requests are obviously outside the scope of giving by a mutual life insurance company.

Present policy involves the establishment in advance of a budget for contributions related to the size of the company (some of the larger requests are based on the amount of assets or insurance in force). Estimates are made for the recurring "must" items and are appropriated by the Executive Committee. Each quarter, during the year, the controller reports the status of the contribution budget to the Executive Committee, with recommendations concerning requests which appear to be within the company's policy.

Purchases, furniture and equipment: Before the budget era, a department head would requisition furniture and equipment as needed, which was usually within a short time after the requisition. By anticipating needs for a year, standard equipment may be ordered in advance and, in some instances, obtained at quantity discounts. Without the pressure for immediate delivery, the purchasing department has an opportunity to discuss the requirements with a department head, resulting sometimes in the revision of demands or the substitution of more efficient and modern equipment for that originally requested.

The company maintains a complete inventory of furniture and equipment, with property numbers affixed to the physical items and keyed to a listing which shows the date acquired and the cost. This list also serves as a basis for the computation of depreciation and constitutes a register of all equipment, by location, in the building.

Insurance coverage: This classification includes protection for the company against hazards ranging from fire to fidelity losses. The possible savings to be derived are not apparent until quotations for similar coverage are received from several brokers. In one instance, involving a substantial amount, one reputable company's three-year premium was found to be less than another's quotation for a single year. It developed that it was to the company's advantage to have a skilled employe spend a great part of his time in handling insurance coverage matters. It would appear that the company is now more completely insured, at less expense, than heretofore.

The Decade's Gains, in Summary

As stated earlier, the company's assets increased 74 per cent during the decade of the fifties, and the insurance-in-force account rose 125 per cent. Expenses, including salaries and the other items listed above that are controllable to a degree by management, increased 53 per cent.

One measure of the trend of expenses from year to year is the cost per $1,000 of new and renewal business. At the beginning of the decade each department began allocating the time of its staff members to (1) investment, (2) new and renewal business, (3) annuities, and (4) administration. The time was costed and the overhead allocated, with the result that it was possible to arrive at reasonably reliable ratios for new and renewal business. This practice has been consistently followed for ten years, and the 1960 costs were found to be less, in both instances, than the 1950 costs.

Relative costs per $1,000 of insurance for 1960 compared with those for 1950	
New business	69 per cent
Renewal business	89 per cent

The expense budget,* even with its shortcomings, has been a useful tool of management over the ten-year period. As one controller commented to the writer at a recent meeting, "the very fact that there is a budget seems to have a restraining influence on spending in a company."

** Interested readers may obtain sample forms furnished to department heads by the National Life Insurance Company to implement the work of the budgetary control committee by addressing requests to the author. The forms include those used for preparation of the budget; quarterly comparison of departmental expenses with the budget; quarterly report to the directors; and a typical comparison of major expense with the budget—by departments.*

—THE EDITORS

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for 83 Blue Cross Programs

SOLUTION:

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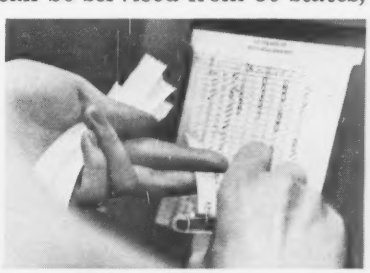
Couldn't your company—like Blue Cross—save both time and money and provide better service with a Western Union Private Wire System? It will be a system *specifically designed* for your company's communications needs.

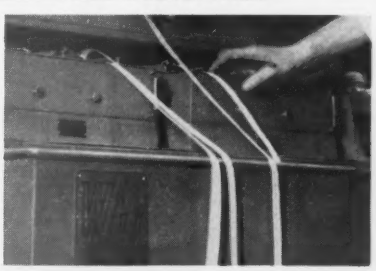
For all the facts, without obligation, wire collect to: Western Union, Private Wire Division, New York, N. Y.

How Blue Cross claims can be serviced from 50 states, Canada and Puerto Rico

10:52 A.M. Request for claim information is sent over a high-speed Duplex System, which permits simultaneous sending and receiving, from any of 107 offices.



10:54 A.M. Received at Blue Cross Private Wire "Braincenter" in New York City, message is instantly forwarded to member-plan covering patient.



10:59 A.M. Wire reply comes back to "Braincenter" from local Blue Cross plan on perforated tape, and is then immediately relayed to the originating hospital.

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YUM

New Rules in Reporting 1960 Income

ACTIONS by Congress, the U. S. Supreme Court and the Internal Revenue Service in 1960 combined to make certain that many, many taxpayers will have to face new rules in reporting their 1960 incomes.

The new tax forms, for instance, require employers to give information on expense allowances of employes whose salaries and expenses amounted to $10,000 or more. All employes who received expense allowances have been advised to follow expense accounting rules very carefully, lest they be penalized.

The Internal Revenue Service has taken a firm stand to stop what it calls "tax abuses" in entertainment and expense allowances, claiming that they often constitute fringe benefits and extra "pay" under another name.

Congress made many changes in the tax laws during the year. One of these gives a break to taxpayers who supported their 65-and-over parents or parents-in-law during 1960. Taxpayers can deduct medical expenses for such dependents without first reducing them by three per cent of the taxpayers' adjusted gross income.

Another break was given to those who supported an elementary or high school student (not a relative or dependent) in their homes during 1960 under a written agreement with a charitable organization. Such taxpayers will qualify for a contribution deduction of up to $50 a month, the Commerce Clearing House review said.

Congress provided that the income of a qualified real estate investment trust be taxed only once, to the beneficiaries, if 90 per cent of the income was distributed. This new tax treatment is purely elective, and goes into effect for tax years beginning after 1960.

For the seventh time in as many years, Congress extended the corporation income tax rate which has been scheduled to come down by 5 per cent in each of these years. The rate will remain at 52 per cent, at least until July 1, 1961.

The excise tax rates on auto parts, cigarettes and liquor, all of which had been scheduled for reduction on July 1, 1960, were extended for one more year. However, the so-called "cabaret" tax was lowered from 20 per cent to 10 per cent.

For purposes of computing gross income for depletion, Congress redefined "mining." The Supreme Court had decided (in a depletion case) that there should be no difference between gross income from mining by ordinary miners and by miners who not only mine but process or manufacture products from the mined material before marketing.

The U. S. Supreme Court also ruled that an asset must be depreciated over its useful life rather than over its economic life. The ruling stated that the amount to be recovered through the period the asset is expected to be used in a taxpayer's business is the cost of the asset minus any estimated salvage value.

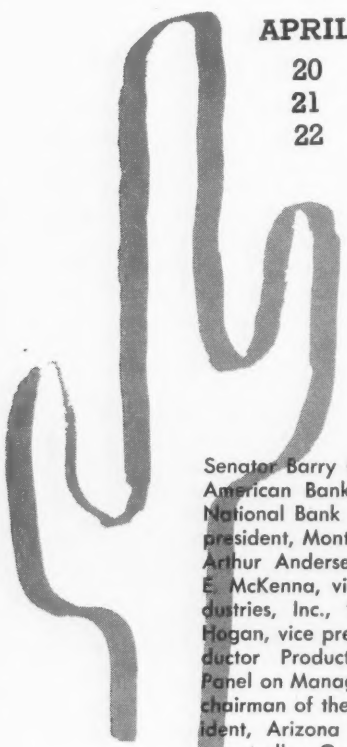
A taxpayer must pay the full amount of any tax deficiency before he can sue for a refund, under another Supreme Court decision. However, this does not apply where the deficiency is for divisible taxes, such as withholding taxes on wages.

In another tax case, the Supreme Court refused to lay down hard and fast rules for separating gifts and compensation. Gifts are not taxed to the beneficiary but compensation is, of course. The Court declined, even though the Internal Revenue Service asked for a set of rules, holding that each and every case must rest on its own facts.

Horse players got a jolt when the Internal Revenue Service ordered a tax crackdown on winners of large amounts in special betting pools. The new directive to race track operators means they must file an information return with the Government on such winners.

New rules adopted in 1960 permit casualty loss deductions for damage to business or income-producing properties to be figured in the same way, substantially, as nonbusiness casualty loss deductions.

Many taxpayers will have one less tax "chore" to worry about in 1961. Even if all other requirements are met which make it necessary to file a tax estimate on 1961 income by April 17, no declaration need be filed if the estimated tax can be expected to be less than $40.



APRIL
20
21
22

Western Conference
Controllers Institute

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PHOENIX, ARIZONA

Senator Barry Goldwater . . . Earl L. Bimson, president of the American Bankers Association, and comptroller of the Valley National Bank in Phoenix . . . C. J. Kushell, Jr., financial vice president, Montgomery Ward & Co., Inc. . . . Leonard Spacek, Arthur Andersen & Co., "Accounting Principles" . . . William E. McKenna, vice president, treasurer and controller, Litton Industries, Inc., "Mergers and Acquisitions" . . . Dr. C. Lester Hogan, vice president and general manager, Motorola Semiconductor Products Division, "Electronics of the Future" . . . Panel on Management Training moderated by Murray S. Gelber, chairman of the board, Harvill Corporation: W. T. Lucking, president, Arizona Public Service Company; Gerald L. Phillippe, comptroller, General Electric Company; and C. J. Thomsen, vice president-control & finance, Texas Instruments Incorporated.

Federal Tax Policy Concerning Foreign Source Income

In recent months there has been increasing evidence of a shift in both the legislative and administrative approaches to taxation of foreign source income. To assist those involved in this area of taxes, Machinery and Allied Products Institute has published a set of three bulletins interpreting the subject entitled "Shifting Trends in Federal Tax Policy Concerning Foreign Source Income." The bulletins cover "Foreign Source Income: Review of Western Hemisphere Trade Corporation Provisions of the U. S. Tax Law"; "Foreign Source Income Legislation"; and "Foreign Source Income: The Use of a Foreign Base Company for Organizing a Company's International Operations." The set—50 cents. Address MAPI, 1200-18th St., N.W., Washington 6, D. C.

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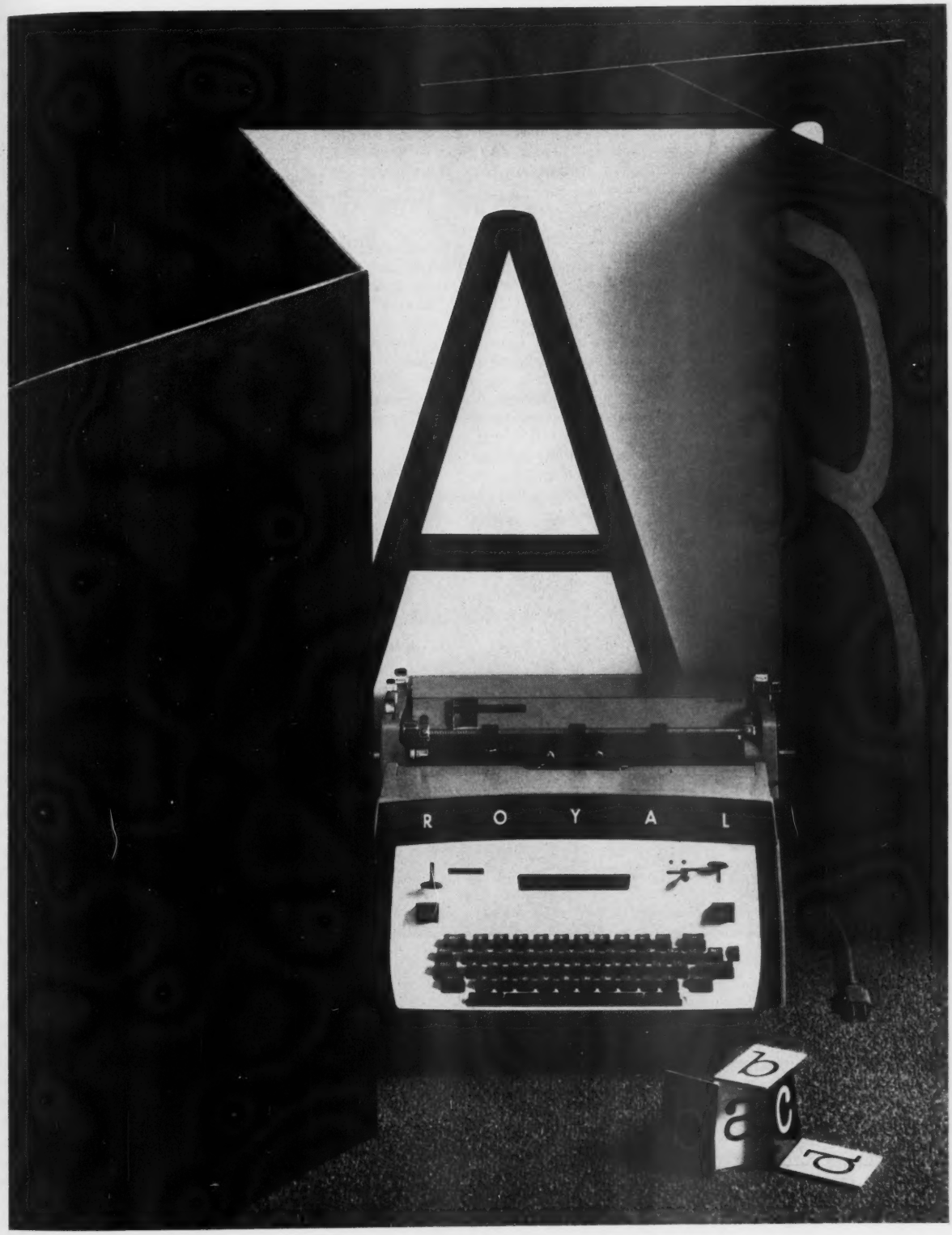

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THE CORPORATION

Will It Go the Way of the Shmoo?

When President Frank S. Capon of Controllers Institute of America addressed the gathering assembled to mark the January decennial of the Institute's Puerto Rico Control, he introduced his remarks by citing as two of man's most fearful creations the corporation and the shmoo.

The shmoo, created by Al Capp for his syndicated comic strip, L'il Abner, has become familiar to nearly everyone as the giver of unstinted blessings. Deliciously edible, fabulously fecund, this delightful, mythical creature aims only to please man, even when to do so requires that it lay down its life before the "shmooicide squad."

But by this last sacrifice it does not even earn man's gratitude. In Dogpatch the people accepted it practically as their due. Their callous behavior at the shmoo's demise caricatured those perennial aspects of human nature, "the desire to get more material things for less effort and the self-satisfied inertia that fails to protect the very institutions that provide a livelihood."

* * *

THE CORPORATION is a fabulous creation which man's imagination has endowed with a life of its own. And it, too, has been the bringer of great blessings. Without it, "it is inconceivable that individuals, alone or in partnership, could have achieved the capital accumulations needed to finance our heavy industry. . . . Without the corporation, big business would be impossible—so, without the corporation, our way of life, our standard of living, would simply not have happened."

And how does man treat this other fabulous, imaginary creature?

While a few of us understand him and defend him, albeit feebly at best, most of our people react about the same way as did the Dogpatchers who lay in the sun watching the shmooicide squad in action. The corporation, being inanimate and without a vote, is generally ill-treated, blamed for human failings, publicly reviled and accused of every conceivable kind of sin.

We strive always to place on the corporation the responsibilities which are truly our own, but which we find unpleasant. We say "the company should do this" or "business is to blame for that" rather than face up to our own problems and responsibilities. Maybe I can make my point by listing some examples:

1. To quiet public clamor we are constantly increasing government services—but to mask the cost we raise an ever-increasing share of government revenues through income or excise taxes on corporations.

2. When we need new hospitals, new universities, or even new concert halls and art galleries, we quickly approach the corporations in the community to put up the greater part of the money "because our people just can't afford this urgently needed community service!"

3. Our labor unions consistently get public and government support in their industry-wide strikes against our big companies "because the companies have millions in the bank and all we ask is a few cents an hour."

4. "Of course, the company pays us when we are off ill," we say, "and it should pay the full amount of health insurance, pension contributions and social club fees." The corporation of today has already taken over much of the "cradle-to-the-grave" social security that was only a dream 20 years ago. *(And what of expense accounts—free trips to conventions, free meals three or four times a week, company cars, theater parties and all the rest?)*

You could all add to that list. Recently I sat in a discussion of ways and means to improve our efficiency and one of our relatively senior supervisors supported an argument to retain a function by saying, "Well, anyway, nobody pays for it—it is charged to the company." Our people at all levels and in all walks of life have learned to heap all their responsibilities onto the corporate shmoo, living their lives in carefree joy as the inanimate companies pay their taxes, build their hospitals, universities and art galleries, pay them the highest salaries and wages ever received by a community and, on top of that, provide them with vested pensions.

Then suddenly the other side of the coin turns up, and the selling price of some product has to be increased. Immediately there is a howl of righteous indignation. *What do "they" mean raising the price of a car?* We'll buy foreign cars

CONTROLLERSHIP *in action*

MEMBERS OF THE BUDGET AND FINANCE COMMITTEE of Controllers Institute of America at a recent meeting held at Headquarters library in New York at which they reviewed the five-year forecast for the Institute before presenting it to the Institute's Board of Directors. Around the table clockwise: **Herbert H. Blevins,** controller, Merck & Co., Inc.; **George N. Farrand,** treasurer, Young & Rubicam; **Paul R. Langdon,** manager-finance and accounting, Battelle Memorial Institute and chairman of the Budget and Finance Committee; **Frank S. Capon,** vice president, Du Pont of Canada, Ltd., and president of Controllers Institute; **Paul Haase,** managing director of CIA; and **Victor L. Persbacker,** comptroller, American Brake Shoe Company and treasurer of the Institute.

and that will teach "them". *What do "they" need duty protection for?* Let "them" increase their efficiency. If foreign manufacturers can produce at a cheaper price, let's buy their goods and force our companies to reduce costs!

Yes, that is the public outcry against our "wicked" corporations the moment there is any suggestion that we, the people, should have to bear any part of the costs of the responsibilities we keep passing off onto the corporate shmoo. And so, we sit idly back while the shmooicide squads of socialists, foreign competition, labor unions and others proceed unmolested with their happy task of wiping out our corporate shmoos. If they succeed, as they most certainly will unless some totally unforeseen defense suddenly develops, we, the people, will be the losers.

Out of the fertile mind of man has developed this most remarkable creature, this inanimate person through whom we have achieved the highest living standard in history, and without whom we would be a second-rate power. But high living has sapped our sense of personal responsibility, and too few of our people are prepared to take the time and the trouble to defend our very way of life against those who deliberately, or in ignorance, set about the destruction of the corporate shmoo. Controllers and financial people as a group have a better understanding of the corporate entity, what makes it run and what may cause its downfall, than does any other group. And thus we have a greater responsibility than any other group to come to its defense.

Compact Cars Cut Steel Mills' '60 Sales 700,000 Tons

The growing popularity of compact cars cost the steel industry about 700,000 tons of shipments to auto makers last year. That would be the equivalent of one million tons of raw steel or about two and one-half days' capacity production for the entire industry.

Steel makers have long conceded that compact car production is costing them some shipments, but Robert E. Lauterbach, Pittsburgh Steel's sales vice president, is the first steel man to give a specific tonnage estimate. He stated that about 30 per cent of last year's production was in compacts and compacts use 30 per cent less steel than larger autos. He gave the compacts credit for stopping the sales growth of foreign cars, made of foreign steel, in the United States market, thereby easing their impact on the American steel market.

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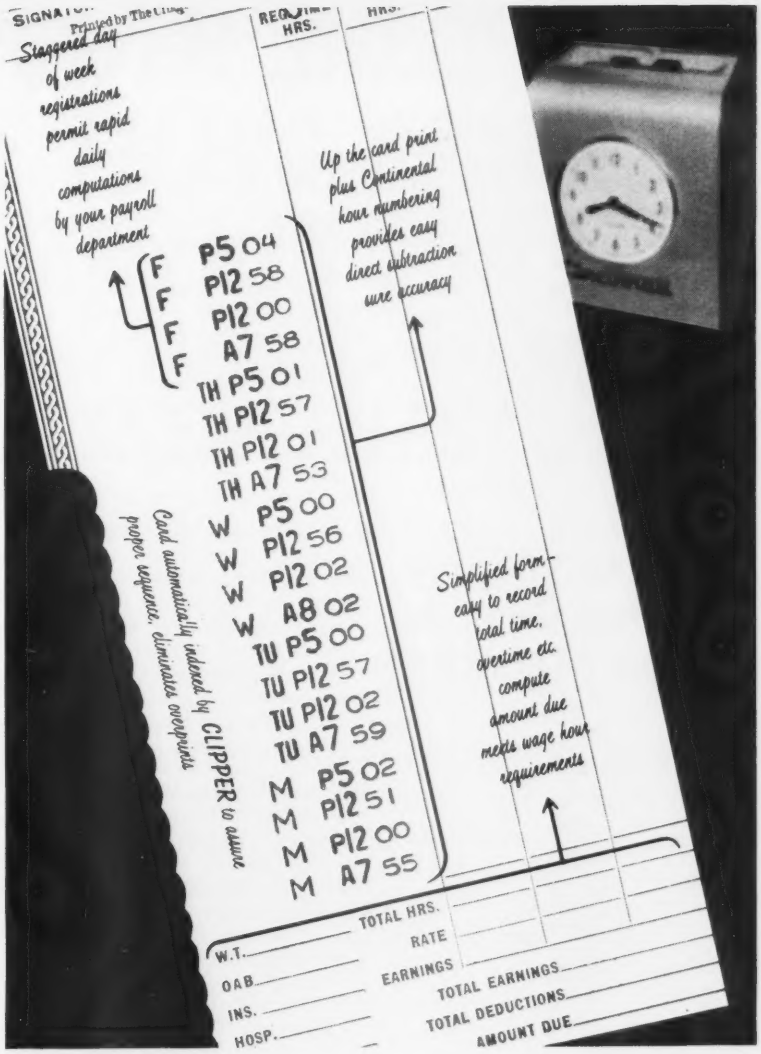

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Stimulating Interest in Production Personnel in Cost Control

Excerpts from an address by John K. Griffin, assistant controller, California Packing Corporation, San Francisco, California, presented at the 29th Annual Conference of Controllers Institute of America at a Foods, Beverages and Allied Products Industry Round Table—October 1960.

OUR EFFORTS toward stimulating interest on the part of production personnel in cost control are directed toward making supervisory people part of management and then furnishing them with cost information so they can manage. One way in which we do this is through conferences between top management and division managers to acquaint the latter with over-all company problems and give the division managers benefit of best operating practices and cost information available in the company.

In turn, the division managers call conferences for plant superintendents, assistant superintendents, and other supervisory personnel to acquaint them with division and over-all company problems and also to discuss ways and means of producing more efficiently and at a lower cost. Topics that are covered include raw product procurement; quality control; training and development of new employes; effect of case recovery and grade recovery on cost.

Plant superintendents and division managers are required to prepare estimates of production based on capacity of the various plants for each product. In these estimates, plant capacity is tied in to availability of raw product. The estimates must show any phase of production facilities that limit production capacity and indicate various alternatives of capacity when more than one product is packed at the same time.

Responsibility is placed on division and plant management for budget preparation. Capital projects must be justified by showing cost savings, additional production possible, etc. Nonoperating labor requirements must be planned and justified during nonoperating season. Maintenance of plant facilities must be planned for off-season. Justification of expenditures must be explained.

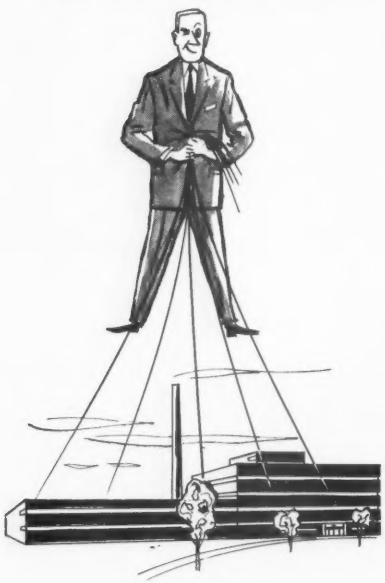
Financial and operating reports showing results during previous fiscal year are given to division managers. These include the division profit and loss statement; operating statistics summarizing production, raw product usage, labor costs; comparison of expenditures with budget appropriations. Information is exchanged between divisions and plants, to develop a competitive spirit among supervisors. In addition, cost problems and cost controls are discussed during visits of top management to the field.

To enable supervisory personnel to manage, we supply them with information about production schedules. An operating statistics report is prepared daily at the various accounting offices during operating season for each product and is distributed to plant supervision, division management, San Francisco operating executives and to the cost accounting section.

The latter prepares cost estimates which show a breakdown of cost and the margins for each product on a per case basis and also in total. It also prepares special studies on various production problems, at the request of management, to show effect of cost and profits. They embrace such areas as where to pack; what items to pack; profitability of new equipment and processes; costs and margins on new products and the effect on overheads, etc.

After years of working along these lines, it appears to us that our production personnel are certainly cost conscious.

How to EXPAND Clerical Controls Without EXPENDING for Extra Facilities



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Paging the New Books

GOALS FOR AMERICANS*

The Report of the President's Commission on National Goals

Reviewed by THOMAS J. FARRIS

During the first decade of the Cold War the most persistent cause of unease in the hearts of thoughtful Americans may have been the frequency with which their country's case was put forward in terms of rank negativism. At that time a great deal of eloquence went into denouncing communism as a political philosophy. But the rhetoric flowed neither so freely nor so effectively when it came to making a positive statement of what democracy stands for.

Americans then seemed to consider it enough that the United States had produced the highest material standard of living in the history of the world. They had yet to learn that this accomplishment did not count for everything with a great many of the peoples for whose support she vied with Russia—nor, for that matter, with some of her own morally disoriented young citizens.

Now all that is changed. Self-examination—broadly cultural or merely political, in depth or otherwise—has become the national order of the day. This volume is only the latest in the recent profusion of studies aimed at re-affirming the ethical basis of the American democracy and at exhorting the moral re-armament of its population.

It consists of a short report by an 11-man commission appointed by ex-President Eisenhower to ponder the subject of democratic goals, and a much longer section devoted to essays by 14 prominent citizens whom the commission asked to state their views on soft spots in various areas of the national culture.

The commissioners proper are an assortment of national leaders which includes two businessmen—Frank Pace, Jr., chairman of the board of General Dynamics, and Crawford H. Greenewalt, president of du Pont—as well as three academicians, a governor, an ambassador and George Meany. As small as was their number—and as short as is their report—the report still does not represent unanimity of opinion in the areas on which it touches. Seven additional statements have had to be appended to the principal document, recording the points on which half of the commission's members disagreed with the other half.

If not in particulars, however, then at least in general tenor, the commission's report contains little that is apt to arouse serious controversy. Part of the section entitled "Goals at Home" may irritate die-hard conservatives by its acceptance of the Federal Government's entrenched role in social welfare. Another part has already ruffled the opposing camp by the limited aim it suggests for the next decade's progress in southern school desegregation. But the average citizen is not likely to consider anything in "Goals at Home" excessively radical or mossbacked, and he will surely find the section on "Goals Abroad" completely unexceptionable.

In fact, all the items in the commission's report read very much like the planks in either political party's 1960 presidential campaign platform. That is, they represent gentle extensions of currently popular, or at least acceptable, political and social practice. They seem to assume, in spite of the commission's ostensible purpose of setting goals, that the ultimate goals are incontrovertible. They are well-meaning and well-meant. They are innocuous.

The 14 additional, individual essays constitute more of the same. Some contain specific recommendations for needed legislation. Most are just "against sin." None (with the possible exception of Professor Morton Grodzins's "The Federal System") seems to embody much in the way of ideas that are fresh or even freshly put.

Goals for Americans is a tremendously important book. But its importance does not really lie in what it says, nor in the amount of discussion—little enough, in all probability—that it is apt directly to stir up. Rather it is important for calling attention to the need for a national credo, even while it fails to provide such a credo.

With all the torrent of words that Americans have lately been issuing forth in national self-examination and self-justification, we still seem to be lacking a clear statement of goals which will truly and ringingly affirm—rather than tacitly apologize for and gingerly hedge about—the meaning of capitalism. If we are to win men's minds away from communism, we must give them more than just a higher standard of living to set against the Russian achievement. We must give them a more cogent political philosophy to think about and a more inspiring social ideal to rally 'round.

The volume at hand recognizes as our basic national purpose the fulfillment of the individual. But what its numerous authors do not seem to take sufficiently into account is the large part in individual fulfillment played by a consciousness of social purpose and a conviction of the rightness of that purpose.

Patriotism is not a dirty word.

** Published by Prentice-Hall, Inc., Englewood Cliffs, N. J. (Paper) $1.00.*

ORGANIZING FOR INTERNATIONAL OPERATIONS*

By Alexander O. Stanley

This report is the result of analysis of the methods used by representative U.S. companies to build their branch and subsidiary structures overseas and the typical management patterns of control employed in international divisions. Contents include patterns in U.S. company investments abroad, prospects for future expansion, overseas contributions to domestic sales and profits, designing the overseas structure, the organization chart, case studies, defining the international manager's job, and a profile study of international management functions.

** Published by the American Management Association, 1515 Broadway, New York 36, N. Y. $12.00.*

HOW TO COMMUNICATE POLICIES AND INSTRUCTIONS*

By Joseph D. Cooper

Policies and instructions must be thought through in terms of user reactions and behavior. It is not the instruction writer who has to follow a clerical or technical procedure, apply policies to specific cases, or assemble and operate a $24.95 widget. It is an employe or customer who reacts the way he does in spite of the "logic" of the instruction writer —this is the central thought of this book.

Dr. Cooper, presently on the staff of

the Emerson Radio and Phonograph Corporation, and adjunct professor of Government and Public Administration at the American University in Washington, D. C., has written a manual dealing with many of the downward communications problems confronting the administrator. The book covers policy manuals, office manuals, technical manuals, sales manuals, employe manuals, purchasing manuals, training manuals and so on. It also covers pamphlets to consumers on "how to do it" or "how to use it." A useful check list of words which have special meanings in communicating instructions is included.

* *Published by the Bureau of National Affairs, Inc., 1231 24th St., N.W., Washington 7, D. C. $14.75.*

Encyclopedic Dictionary of Business Finance*

By the Editorial Staff of Prentice-Hall, Inc.

This alphabetically arranged, 712-page reference work purports to be both a complete dictionary of financial words and phrases, and an all-inclusive encyclopedia whose entries run from "Accident Insurance" to "Yield on Stocks." When used as a dictionary, it supplies the principal meaning of a term and the term's corollary meanings and synonyms; its encyclopedia entries range from a paragraph or two to several pages and go on to discuss basic policy, applications, working procedure, and expected results with respect to a particular financial situation.

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AVERT LOSSES IN THREE BIG DANGERS TO NEW VENTURES ABROAD

Many losses which may be due to three of the biggest dangers confronting United States business overseas can be protected through the Investment Guaranty Program. These insurable dangers are listed in a Commerce Clearing House report as: (1) currency inconvertibility; (2) expropriation or confiscation, and (3) war.

With new countries, surging nationalism and foreign investment all expanding at record pace, the Investment Guaranty Program becomes a major point for consideration in American business expansion abroad. Already, even prior to the Cuban seizures, more than 400 million dollars of American business investment in other lands had been covered under the Program.

Recent interest in the Program has been stepped-up considerably by the Cuban crisis. It is interesting, the CCH report notes, that none of the American investments in that island was covered by the Guaranty Program's protection against expropriation, although that protection was available.

The role of the United States Government in the Guaranty Program is to encourage desirable investment in those countries in which the Program is applicable, and then to act solely as a guarantor. No obligations are placed on the investor other than those necessary to the administration of the guaranty.

Since the purpose of the Program is to encourage additional American investment, these guaranties are not available for existing investment, or investment that has been irrevocably committed before an application of insurance has been filed. However, they are available for new additions to existing investment. In short, it is the investment which must be new—not the enterprise in which the investment is made.

Investments may be made in the form of equity, loan licensing agreements, or other methods typical of foreign investment practice. Investment contributions may be made in cash, machinery, equipment or in other forms.

Investors must pay an annual premium for the protection given by the guaranty contract. Rates are the same for all countries included in the Program. In the past, guaranty contracts have been written covering amounts as low as $1,000 and as high as $42 million.

To be eligible for a guaranty, an investment must be approved by the International Cooperation Administration, which is in charge of the Program and develops the guaranty contracts. The Export-Import Bank acts as ICA agent in the final execution of each guaranty contract and in its administration.

The investment, to qualify, must further the development of the economic resources and productive capacities of economically underdeveloped countries. This could include most projects which promote trade, provide economic development, increase production, raise standards of living, improve technical efficiency, etc.

Guaranties are now available in a large number of underdeveloped countries and overseas dependencies of developed countries. A list issued recently by the ICA shows that new investments in 36 nations are eligible for guaranties against currency inconvertibility. Although the formal agreement with Cuba is in effect, the program for all practical purposes is now inactive.

In all but five of these, including Cuba, the investor also may be covered against expropriation or confiscation. Insurance against losses due to war, however, is limited to investments in only 12 of these nations.

Although as of January 1, 1960, the Mutual Security Act of 1959 excludes economically developed countries from the Investment Guaranty Program, guaranties against currency inconvertibility are available for underdeveloped overseas dependencies of the following six nations: Belgium, Denmark, France, Italy, The Netherlands and the United Kingdom.

Losses due to expropriation also are insured for all such dependencies excepting for those of the United Kingdom. However, Italy is the only country for whose dependencies American investments may be insured against losses sustained by reason of war.

Before guaranties can be issued for investments in a particular country, an agreement is signed between the United States and the foreign government to institute the Guaranty Program.

Primarily, the agreement provides the understandings between the two governments as to the status of local currency and other claims that may be acquired by the United States when contracts of guaranty are invoked. A total of 49 countries have entered into such agreements with the United States since June 28, 1948.

A full description of the Investment Guaranty Program has been issued by Commerce Clearing House in its "Emergency Business Control Law Reports."

YOUNG MEN GO EAST

"The effect of European competition on American industry in the last two or three years has brought about a revolution in the attitude of American business as a whole to international operations. American corporations are beginning to act as truly international corporations," stated E. P. McKenna of Planning and Development, Ford International Division, Ford Motor Company at an NICB meeting.

An adjunct to this new attitude is the establishment of partnership arrangements with foreign companies and subsidiaries. Whether staffed by men in the foreign field of business or by men transferred from the American field, the need for more understanding of other countries, languages, ideologies, and ways of doing business looms in the future picture.

A step in the preparation of our representatives is the course of training for executives who expect to handle management duties in foreign locales at the American University in Washington, D. C., called the BCIU* Training Program for International Business Executives.

The course during each four-week span not only covers about every aspect of international business operations, but deals with the culture, traditions, and customs of foreign countries. Students' wives are also urged to attend either a special one-week course or a full four-week indoctrination in the mores of alien lands. Training in foreign languages is optional. The students, chosen by their respective companies, are in the middle- or upper-management category; they are not men just beginning to assume executive responsibility.

Washington was chosen for the training program because it is possible there to draw upon the experience of business and government as well as the facilities of a major university. Foreign ambassadors and embassy personnel are available as well as business leaders with foreign experience for discussion periods.

The Washington school will have complete four-week sessions on these dates during 1961: April 3, June 12, September 18 and November 13.

* The BCIU (Business Council for International Understanding) is a nonprofit organization composed of about 70 United States companies doing business overseas.

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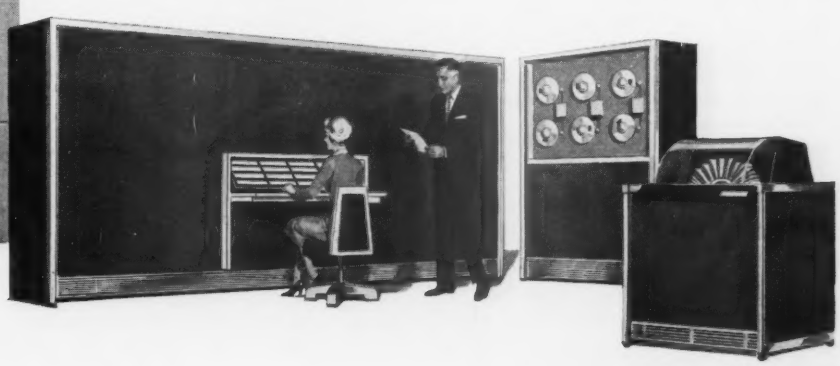

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How To Install a Cost System

(Continued from page 116)

tributed among the different products on the basis of pounds, batches, or job lots. Another group of expenses is proportional to labor and can be distributed on the basis of labor dollars, man hours, or number of people, whichever seems applicable. Among the expenses capable of being so distributed are indirect labor, supervision, vacation pay, overtime premiums, and personnel services.

The cost center which has very little equipment, but considerable hand labor, is usually best distributed on the basis of labor. On the other hand, the cost center which has considerable expensive equipment and very little labor may be distributed on the basis of machine hours operated, pounds or batches of production, or jobs run. If the utilities used for the different products or jobs in a given cost center vary considerably, it may be desirable to distribute such utilities separately to the products or jobs, while the balance of the expense in the center is distributed by machine hours, occupancy rental, or production. Similarly, if a particular material or other item of expense applies more to one product or job than to another, special treatment should be given to it in prorating the expense of the center.

To determine the proper basis for distribution of the cost center, try first to arrive at which of the three major variables —labor, time occupancy, or production— accounts for the most expense. Then decide if one or more bases of distribution should be used, and consider whether or not such expenses as utilities or some other class of expense should be taken out and distributed separately.

In arriving at a final decision, it may be necessary to adopt the cut-and-try method and distribute on two or three bases for a given period. It may be found that a single base can be used which is not 100 per cent accurate but which establishes costs within a reasonable degree of accuracy.

After enough data have been collected, it is possible to fulfill what is, of course, the final objective: Setting standard overhead rates that are based on actual costs.

Check List Item #22

STANDARD FOR DISTRIBUTION, SELLING, AND GENERAL AND ADMINISTRATIVE EXPENSE

Studies should be made to determine standards for each type of expense in the case of each product, good for at least a budget year. The aim should be that the volume of sales of each product, multiplied by the standard factor for each type of expense, should give a total which would be reasonably close to the actual money spent for the period of a budget year. Other types of expense warrant special comment.

In the case of shipping and warehouse expense, give effect to the following: Packing labor and materials, handling labor to and from storage, and storage space occupied.

In the case of distribution expense, determine weighted average transportation costs of different products or product groups to different parts of the sales territory.

In the case of selling expense, if salesmen are by product lines, reflect this in the standard. If not, perhaps arbitrary estimates may suffice, or a relation of expenses to dollar sales.

In the case of advertising and promotion, apply the expense to the products advertised. If the advertising is of a general or institutional nature, spread it on a sales dollar basis.

In the case of research and development, if these costs have been collected by projects which are coded in relation to products or product groups either present or projected, determine factors per unit of sales accordingly. If no sales of a projected product are anticipated for the budget period, accumulate the cost separately until such time as the product is launched. At that time decide on how much of the preproduction cost for research and development should be reflected in the standard for the year—and, incidentally, how much of this preproduction cost should be included in the selling price—in order to recover all costs over a period of time. Money spent for basic research can be applied on a sales dollar basis if a better basis is not available.

In the case of general administrative expenses, apply on a sales dollar basis unless, as in the case of a patent department (which is sometimes considered a part of research and development), costs are applicable to particular products or product groups. Sometimes a part of accounting such as billing, order, and credit, may be split on an order basis to product groups.

Check List Item #25

MANAGEMENT REPORTS

Factory Performance Reports. These might be three in number:

A report on materials would determine the difference between actual and standard dollars for each individual material at each stage of operations and would establish losses and gains, scrap made, degradings, adherence to formulas or job estimates, and adherence to yield.

A report on labor would compare actual direct labor costs with standards by operation and by product and would summarize them by cost center and for the plant as a whole.

A report on overhead would compare actual money spent with the standard amount that should have been spent for the percentage of capacity at which the plant operated.

Net Profitability Report. This is a report which is usually prepared annually for the coming year, along with financial statement forecasts. It is prepared to show, by product and product group: Net sales; cost of sales; gross profits; distribution, selling, advertising, research and development, and administrative expenses; and, finally, net operating profit.

A similar annual report is made after the year end by using actual figures, but it is necessary, in comparing the two, to do more then look at the net profit per unit. It is necessary to consider the effect of fixed and variable expense.

Evaluation of Fixed Assets. Comparative reports should be prepared, showing (a) estimated return on investment, or payout, at the time the expense is presented for approval, and (b) actual payout, after the facility has been used long enough to prove its value.

Evaluation of Research and Development. A comparison of past expenses and the coming year's proposed budget.

A (Monthly) Report Comparing Actual Expenses and Budget for Nonoperating Departments. The report should give data for the current month and for the year to date by cost center and class of expense.

Analysis of Monthly Financial Statements. This report should show the effect of changes in sales prices and in sales mix. It should establish the principal reasons for percentage changes in cost of sales. And it should note and explain increases or decreases in inventories.

Annual Budget Forecast. The reports which are most useful in budget discussions are (a) complete financial statements with supporting data, (b) an estimated net profitability statement, and (c) a statement of research and development costs.

CONCLUSION

In presenting these thoughts on how to install a cost system, space was not available to elaborate the pros and cons of methods and procedures on which many professional accountants differ. But the real test of any system is its acceptability by the people who have to use it, and the recognition by all that it represents the facts as they actually exist. One factory manager expressed his opinion in these words: "I now have some 'raise-hell' figures which pinpoint results and which are a help to foremen in correcting faulty procedures and effecting savings." The methods outlined above have met this test in many installations.

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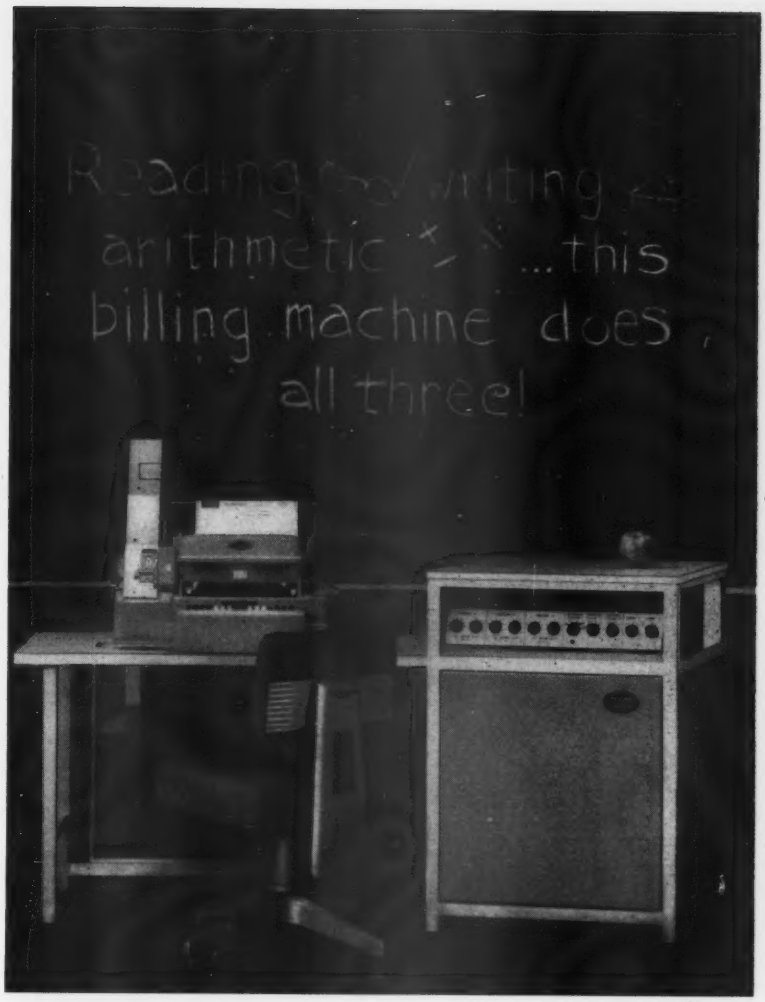

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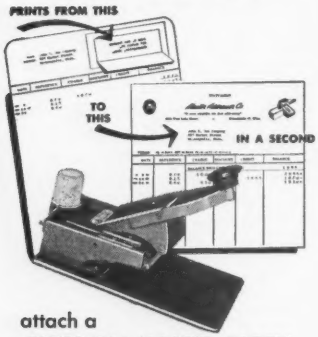

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The Influence of EDP on Internal Control

(Continued from page 126)

and compare the two readings before writing out the data on tape. In this way the card-to-tape converter checks itself for accuracy. The same technique, of course, may be used where the transfer of data is made directly from cards to some type of storage other than magnetic tape.

Check for card output. Magnetic tape may be converted to cards to be used as an output device. (One example of cards used for this purpose would be payroll checks.) The data are read from tape by the converter and the card is punched. The converter then reads the card and compares it with the message read from the tape to make sure that the two are in agreement.

Check for printed output (echo check). In the case of printed output, "an electrical signal caused by the mechanical operation of printing is compared to the input signal from the computer or tape. . . . An error routine can be programmed to cause re-reading to eliminate most transient errors, and to stop after a specified number of re-read cycles if the error persists."*

* Price Waterhouse & Company, "The Auditor Encounters Electronic Data Processing," New York: International Business Machines Corporation, 1956.

The echo check is not, however, so effective as the check for card output. With the latter the card is checked *after* punching, that is, after the data have actually been transferred from magnetic tape to the card. With the echo check a character may be set up correctly on the printer, but it is possible that the character thus set up may not be printed. In this case, the echo check would not discover the discrepancy.

* * *

The principal internal control techniques instituted by the adoption of electronic data processing have been considered here. Some changes in auditing techniques themselves, of course, may be anticipated. In essence, however, it is in the area of internal control that auditing has been most drastically affected, since recording by electronics will not of itself change accounting principles or the presentation of information in the final accounting reports.

INTERESTED READERS may want to go to the following sources for material for further study:

BOOKS

Bell, William D., *A Management Guide to Electronic Computers,* New York: McGraw-Hill, 1957.

Canning, Richard G., *Electronic Data Processing for Business and Industry,* New York: John Wiley and Sons, 1956.

Gotlieb, C. C. and Hume, J. N. P., *High-Speed Data Processing,* New York: McGraw-Hill, 1958.

Jones, G. M., *Electronics in Business,* East Lansing, Michigan: Bureau of Business and Economic Research, Michigan State University, 1958.

PERIODICALS

Jauchem, C. R., "Impact of Electronic Data Processing on Auditing," *NAA Bulletin,* May 1958.

Kaufman, Felix, and Schmidt, Leo A., "Auditing Electronic Records," *Accounting Review,* January 1957.

McCullough, Thomas E., "The Auditor Uses the Computer," *The Internal Auditor,* December 1959.

Perry, George M., "The Nature of Computer Control," *The Internal Auditor,* December 1959.

Shonting, D. M., and Stone, L. L. D., "Audit Techniques for Electronic Systems," *Journal of Accountancy,* October 1958.

WANT HELP? *Swamped by all the material on electronics? Can't find information on specific applications of electronics? Want to know experiences of companies converting to electronics?*

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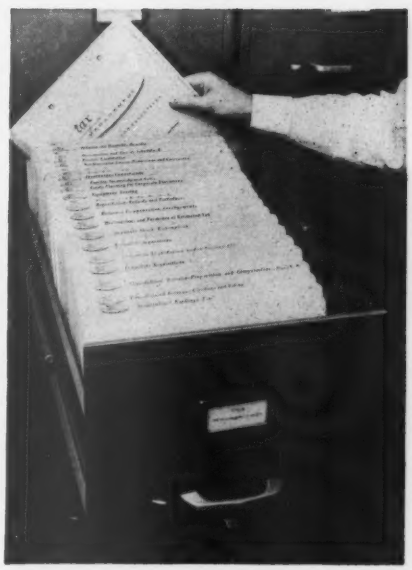

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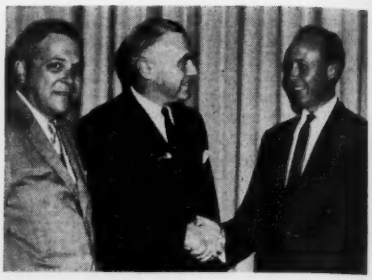

San Juan, Puerto Rico

(ABOVE)

Congratulations were the order of the day on the occasion of the 10th anniversary observance of the Puerto Rico Control of Controllers Institute of America held in mid-January.

Institute President Frank S. Capon, vice president, Du Pont of Canada Limited, Montreal *(center)*, congratulates Jack R. Younger *(right)*, comptroller, International General Electric Puerto Rico, Inc., who is president of the Puerto Rico Control. With them *(left)* is Arthur J. Sowers, executive vice president, Univis Lens Company, Ft. Lauderdale, Fla., and a past president of the Dayton Control, who was a guest at the meeting.

(TOP LEFT)

The Control's charter members who were present at the meeting are shown looking at a scrapbook of pictures and other items covering the Control's early years. The scrapbook was presented to President Younger by the Control's first president, Joseph Borst, who is now retired and living in Puerto Rico. Looking at the scrapbook *(left to right)* are Enrique Jimenez Matta, Francisco J. Arteaga, Ramon Rivas, Ramon Rodriguez Sanchez, Edward J. Powell, Manuel Aragoneses, and Jorge Camunas Monge. Each has served as president of the Control during its first decade.

(LOWER LEFT)

Seated *(left to right)* are Paul Haase, managing director of Controllers Institute; Louis C. Butler, a past president of the Control; Control President Younger; President Capon; Secretary-Treasurer of the Control Rodriguez; Control Director Powell.

Standing *(left to right)* Mr. Sowers; R. J. Kenard, the newest member of the Puerto Rico Control, who is with the San Juan Racing Association, Inc.; Mr. Arteaga; Mr. Camunas; Mr. Aragoneses; Mr. Rivas; and Mr. Jimenez.

Montreal, Quebec, Canada

(TOP RIGHT)

At the mid-January meeting of the Montreal Control of Controllers Institute, held at the Mount Stephen Club, special guests were heads of the Accounting Departments of several universities in the Montreal area. Seated *(left to right)* are: Professor Jean Lanctot, University of Sherbrooke; Professor J. G. Finnie, Sir George Williams University; Professor K. F. Byrd, McGill University (chairman, Control's Education Committee) and Rev. W. J. McDonnell, Loyola College.

Standing *(left to right)* are M. B. Tennant, vice president of the Control; Walter Hill, a Control director; Albert G. Price, a Control director; James T. Black, president of the Control; Geoffrey Edge, guest speaker; R. E. Cadwallader, a director of the Control; R. B. Simpson, Control secretary, and Sam Mann, treasurer of the Control.

New York, N. Y.

(CENTER RIGHT)

A meeting of minds among members of Controllers Institute was held on January 16 at the Advertising Club. The reason: To discuss what action, if any, the Institute should take on the very important subject of "conflict of interest."

Around the table *(left to right)* are G. L. Phillippe, comptroller, General Electric Co., New York; Ben Makela, Controllers Institute; D. E. Browne, vice president-finance, Lockheed Aircraft Corporation, Burbank, Calif.; Ernest W. Redeke, comptroller, the First National City Bank of New York; Peter Lucia, auditor, and Ralph C. Mark, comptroller, General Motors Corporation, Detroit; and James P. Moore, Jr., vice president and comptroller, the Mutual Benefit Life Insurance Company, Newark, N. J.

(LOWER RIGHT)

Members of the New York State Society of Certified Public Accountants and the New York City Control of Controllers Institute arranged for a joint luncheon meeting in mid-January. At the head table *(left to right)* were: S. W. McLaughlin, vice president, Eastern Area, CIA; W. J. von Minden, School of Business Administration, Rutgers University; Paul Haase, managing director, CIA; J. L. Carey, executive director, American Institute of Certified Public Accountants; Frank S. Capon, president, CIA; Benjamin Grund, president, New York State Society of CPAs; James J. Doyle, president, New York City Control; Maurice Moonitz, director, Accounting Research Division, AICPA; Roger A. Yoder, chairman of the Board, CIA; Harold P. C. Howe, executive director, NYSSCPA; and L. C. Guest, Jr., president of Controllers Institute Research Foundation.

Step-Up Seen in Conflict-of-Interest Studies

Stunned by the conflict-of-interest scandal that rocked Chrysler Corporation last October, American companies everywhere are scrambling to make sure it "won't happen here." A survey of 200 leading corporation presidents reveals that 25 per cent have checked key personnel for possible conflicts of interest, 15 per cent plan to survey their executive staffs soon, and another 15 per cent will continue with standard, periodic check-ups. Among companies not planning investigations, nearly one out of four has reminded executives of strict company policies, says *Dun's Review* and *Modern Industry*.

The mechanics of surveying key personnel is relatively simple. Companies generally pass around a written questionnaire focusing on the outside stock holdings, acceptance of kick-backs, and familiarity with company policy. A few companies rely on face-to-face interviews, and one places its faith in an outside detective who checks people if duplicity or unsavory practices are suspected.

Despite widespread alarm over conflicts of interest, three out of four presidents report their companies have had no scandals over dual loyalties within the last 10 years. Among those with tarnished records, minor problems such as accepting Christmas gifts accounted for most conflicts of interest. Serious abuses discovered ranged from investing in supplier companies (the most common conflict of interest and the one involved in the Chrysler case) to misusing privileged information, leaking confidential data, and accepting kick-backs.

Over two thirds of the company heads surveyed endorse the view of Frank Magee, board chairman of Aluminum Company of America: "A clearly stated policy and a clear understanding that it will be enforced throughout the company are the most effective means of heading off possible conflict-of-interest situations." Richard E. Krafve, president of Raytheon Corporation says: "The problem is not new—the increase of conflicts of interest in the business world is only illusory. Apparent increases may be ascribed to the healthy publicity given to conflicts discovered in recent years."

Backing up this opinion, most of the presidents, who manage America's biggest corporations, say general business ethics have held up well during the last decade —in part, they say, because of the "demand to know" by government, labor, stockholders, and the public.

A few respondents insist that conflicts of interest and corruption in American corporations will erupt so long as man's basic nature remains unchanged. This view is summed up neatly by John E. Shearingen, president of Standard Oil Co. (Indiana): "Ethics are as high now as in any recent period of business activity. Unfortunately, one cannot legislate honesty or guarantee absolutely that there will be no bad apples in the barrel."

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Private Exploitation of Space

Two American companies have asked the Government for permission to launch a satellite on their own—General Electric Company and American Telephone and Telegraph Company. AT&T wishes to carry on experiments in global telephonic and television communications. From start to finish the project would be an AT&T operation.

The utility would contract for the satellite's launching, device attachment and permanent maintenance on the same basis that the Government now does. GE protests spending millions of dollars on electronic laboratories for space penetration purely and simply to work for Uncle Sam.

In line with expanding efforts in the field of space, Goodyear Aircraft Corporation has announced the establishment of a new aerospace department within its engineering organization. The new department will provide the management for all the company's engineering effort in the field of astronautics.

Factory Workers Wages Increasing

Despite two recessions, average weekly earnings of the nation's factory workers rose 51 per cent between 1950 and 1959. In terms of constant dollars (1947-49 = 100), this increase amounted to 24 per cent. The increase is the result mainly of higher wages, rather than longer hours worked, according to the National Industrial Conference Board.

During the first half of 1960, two million workers received pay increases in major labor-management contract settlements. The Labor Department reporting this said about two thirds of the workers had received raises of nine cents an hour or more. In addition to the increases negotiated from January through June, about 850,000 workers received pay increases during the period that had been negotiated at an earlier date.

For Statistics Fans

Electronics was fifth among the nation's industries in 1960. According to the Secretary of Commerce "it could become first in size in the next ten years." The country's four top industries presently are automobiles, steel, aircraft and chemicals.

Self-Service-Market Pattern Now Being Promoted in Europe

An on-the-spot reporter states that supermarkets in Europe are presently developed to about the point they were in the United States in the late 1920's but predicts that the self-service idea will penetrate deeply into the European economy. Since World War II the expansion of such stores (mostly for food) has grown from 164 in all Europe in 1948 to an estimated 55,000 today. Of the true American-style "supermarket" (some of the super-supermarkets are backed by American capital and know-how) there are now only 300 in all Europe.

In the United States, he reports, 98 per cent of all food is sold by supermarkets; in West Germany, 12 per cent; in Scandinavia, 10+ per cent; in Switzerland, 7 per cent; in England, 4.3 per cent; in France, 0.9 per cent; and in Italy, 0.1 per cent.

Way Out

Bell Laboratories has announced assembly of a Nike-Zeus digital computer, the first computer built from information completely furnished by another computer.

Designed for the Army's antimissile defense system, the computer, built in Burlington, N. C., by Western Electric Company, has been shipped to Ascension Island in the South Atlantic for tracking tests.

The computer's logic network, consisting of 47 subassemblies, is the result of a system developed by Bell. It is said to cut data-gathering time from four weeks for each subassembly unit to 25 minutes.

Low Bid Does Not Always Win

In the procurement of heavy equipment for power contracts, the Federal Government has come up with a new rule to fit a new type of bidding situation. The new rule: The Bureau of Reclamation declared that it would not award more than one major turbine contract to a company that has not heretofore manufactured turbines for the Bureau. The rule was occasioned by a Japanese company submitting the lowest bids on three out of four turbine contracts. Only one contract, the first sale of a Japanese turbine to any buyer in the United States, was awarded to the foreign firm. Officials say the same rule would apply to American producers if such a case ever came up.

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Personal Notes

TOP MEN . . .

J. D. Bruce, Jr., was recently elected president of A. P. de Sanno & Son, Inc., Phoenixville, Pa. Mr. Bruce joined the company in 1940 as comptroller. . . . Giffen Industries Inc., Coral Gables, Fla., has named **Robert I. Fredericks** as its president. . . . **Fred R. Sullivan,** president, Monroe Calculating Machine Company, a division of Litton Industries, Orange, N. J., has been named a senior vice president of Litton and at the same time has been elevated to the post of chairman of the board and chief executive officer of Monroe.

NEW CONNECTIONS . . .

Robert Boesl has been appointed controller of Barkas & Shalit, Inc., New York. . . . **Herbert J. Brown** was elected vice president and controller of American Biltrite Rubber Co. Inc., Chelsea, Mass. . . . **William A. Hands** recently became controller of National Casket Company, Boston, Mass.

Antonio E. Lebron has assumed the responsibilities of vice president-finance of Puerto Rico Meat Packing Co., Caguas, P. R. Mr. Lebron is a past president of the Puerto Rico Control of Controllers Institute. . . . The appointment of **Arthur W. Mack** as treasurer of the Ford Instrument Company Div., Sperry Rand Corporation, Long Island City, N. Y., was announced recently. . . . **E. A. Seffing** is now treasurer of Shop of Siebert Associates, Inc., Waterville, Ohio.

Florence Pipe Foundry and Machine Company, Florence, N. J., has appointed **Frank H. Van Duzer** its controller. . . . **Horace C. Walton** was named vice president-finance and secretary of General Time Corporation, New York. . . . The appointment of **Albert J. Wieland** as treasurer of Dictograph Products, Inc., Jamaica, N. Y. was announced recently. . . . **Stanley Landow** was named vice president, controller and a member of the executive committee of Foster & Kleiser Division of Metropolitan Broadcasting Corp., San Francisco, Calif.

MR. BRUCE

MR. FREDERICKS

MR. SULLIVAN

MR. WIELAND

MR. BRUNO

WRITERS . . .

The January 1961 issue of *NABAC* carries an article, "Mechanization Becomes a Reality," co-authored by **Denton A. Fuller,** president, Citizens National Bank, Wellsville, N. Y.; **Arthur Larschan,** vice president and comptroller, Exchange National Bank, Chicago, Ill.; and **William H. Greenfield,** senior vice president, Republic National Bank, Dallas, Texas.

SPEAKERS . . .

Kenneth J. Plant, comptroller of Rensselaer Polytechnic Institute, presented a paper at the 41st Annual Meeting of the Eastern Association of College and University Business Officials at White Sulphur Springs, W. Va., entitled "A Study of Financial Aid to College Students from State and Private Sources in Nineteen Eastern States and Provinces."

ADDITIONAL DUTIES . . .

Rexford E. Bruno has become vice president and treasurer of United Air Lines, Inc., Chicago, Ill. . . . **Karl G. Clement** is now corporate controller and assistant secretary of the Reuben H. Donnelley Corporation, Chicago, Ill. . . . The election of **Frederick C. Gens** as vice president and treasurer of R. T. Vanderbilt Company, Inc., New York, was announced recently. Mr. Gens is currently president of the Long Island Control of Controllers

(Continued on page 158)

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MR. SCHEPER

Institute. . . . Transcontinent Television Corporation, New York, recently elected **Clifford M. Kirtland, Jr.,** as vice president and treasurer.

A. A. Vogel, vice president, Emerson Radio & Phonograph Corp., Jersey City, N. J., is also secretary-treasurer and a director of Emertron, Inc., a subsidiary. . . . **E. B. Shuck,** treasurer of Koppers Company, Inc., Pittsburgh, Pa., is also treasurer of Thos. Flexible Coupling Company, a subsidiary.

Dean P. Fite was recently elected vice president and comptroller of the Procter & Gamble Company, Cincinnati, Ohio. . . . **Robert L. Kemper** is now assistant vice president and assistant controller of Wells Fargo Bank American Trust Company, San Francisco, Calif.

NEW APPOINTMENTS . . .

Eugene F. Ratliff recently became executive director of Corporate Analysis of Eli Lilly and Company, Indianapolis, Ind. . . . **Robert A. Stringer** is now operations manager of the Jell-O Division of General Foods Corp., White Plains, N. Y.

PROMOTIONS . . .

David R. Arnold is vice president-general auditor of Chicago, Rock Island & Pacific Railroad, Chicago, Ill. . . . **Robert F. Dunne** recently became controller of Frequency Standards Division of Harvard Industries, Inc., Asbury Park, N. J. . . . The election of **Charles M. Hupp** as vice president-finance of the New York *Herald-Tribune,* Inc., was announced recently.

New Jersey Business Development Corp., Newark, N. J., has appointed **Henry L. Junge** as vice president. . . . **A. M. MacKinnon** recently became treasurer of Warner-Lambert Pharmaceutical Co., Morris Plains, N. J. . . . **Joseph W. McDonald** is now vice president-finance of W. A. Sheaffer Pen Company, Fort Madison, Iowa.

E. F. Mues was named budget director of the American Home Foods Division of American Home Products Corporation, New York. . . . The appointment of **George H. Scheper** as financial vice president of DuBois Chemicals, Inc., Cincinnati, Ohio, was announced recently. . . . **Kenneth D. Thompson** is now treasurer of Wilson Marine Transit Company, Cleveland, Ohio. . . . **Arthur J. Young** has become treasurer of General Aniline & Film Corporation, New York.

NEW DIRECTORS NAMED . . .

Frederick E. Burnham, vice president-finance, Chance Vought Aircraft Inc., Dallas, Texas, to his company's board. . . . **George D. Gee,** president, Interstate Securities Company, Kansas City, Mo., to the board of the Broadway National Bank of Kansas City. . . . **Frank J. Gleason, Jr.,** controller, Copeland Refrigeration Corporation, Sidney, Ohio, to his company's board. . . . **William J. Hogan,** chairman-finance committee, American Airlines, Inc., to the board of Raytheon Company, Waltham, Mass. . . . **Wayne C. Marks,** president, General Foods Corporation, White Plains, N. Y. to the board of Bankers Trust Company, New York. . . . **Arthur M. Wittman,** treasurer of the Standard Register Company, Dayton, Ohio, to his company's board. . . . **Harold F. Stepanek,** controller, Alpha Portland Cement Company, Easton, Pa., to the board of his company.

EXTRACURRICULAR ACTIVITIES . . .

Martin R. Gainsbrugh, chief economist of the National Industrial Conference Board, New York, was elected president of the American Statistical Association. . . . **Francis D. Holford,** controller, Oscar Mayer & Co., Madison, Wis. was named 1961 president of the Madison (Wis.) United Community Chest.

MR. JUNGE

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Tracing Profits Overseas *(Continued from page 122)*

facture to the customer. These costs will include transportation, import duties, and selling expenses. Taxes on statutory profits in both selling and manufacturing countries are noted for subsequent study of their proper treatment. Normally this will be treatment as a cost and a deduction from revenue.

At the completion of step 2 the relative profitability of the markets served by each plant will be clear. However, it is still necessary to fix the profitability of plants because of differences between plant manufacturing and raw material costs.

3. Develop manufacturing product costs for each plant based on the true costs incurred. That is, include at true cost any raw materials, semifinished parts, etc., which are transferred from another company-owned operation. The completion of this step is to match up appropriate costs with their reduced revenues arrived at in step 2. From this can be derived comparative profitabilities by plants. Throughout all these calculations, transfer prices and profits syphoning are ignored. Only revenue arising from sales outside the enterprise and costs actually incurred are used.

The question whether taxes should be treated as a cost, a lasting profit appropriation, or as a temporary charge to be offset later is difficult to answer and varies from case to case. The existence of tax treaties, the over-all tax position of the parent enterprise, or the use of tax consolidation of subordinate statutory organizations all bear on the problem. So does the possibility exist of "paper profits" in work center country A exceeding the enterprise's final earned profits as a result of "losses" incurred in the revenue center country B, thereby giving rise to "nonoffsettable" tax losses in B.

To measure and rank profitability meaningfully requires arriving at the amount per dollar of sales that can be considered retained earnings for each market and product. All taxes levied on profits and any additional taxes incurred in making net profits available for further use must be deducted. The fact that taxes paid are subsequently used to offset or reduce taxes payable in other parts of the enterprise has no bearing in establishing the relative profitability of the sales dollars that generated the tax liability in the first place. It has, of course, a great deal of bearing in planning maximum cash flow and minimum tax payments.

Profits in country A are to be reinvested locally in plant and working capital. Country A's profitability is therefore measured after deducting all taxes on profits generated by the goods it sells, up to the time of reinvestment.

Profits in country B are not required for local reinvestment, but are remitted to country C where they become part of the available funds of the enterprise. A distribution tax is paid in country B which would not have been suffered if the profits had been reinvested in country B. As long as profits are not to be reinvested in country B, the distribution tax must be deducted in arriving at B's profitability.

4. Develop return on investment data for markets by products. Establishment of actual profitability is not of itself enough. Returns on investment must now be calculated, since profit and investment may easily be disproportionate. At the completion of this step management should be in a position to rank its markets and products in order of their profit contribution to the total enterprise and their individual return on investment.

In most industries the identification of the most profitable markets and products will normally be followed by every effort to exploit these markets and products. However, in many cases there must be a full evaluation of the impact on the whole enterprise of capitalizing upon apparent profit opportunities. For example:

Increasing share of market in country A, the most profitable market would require additional manufacturing capacity in country B. This might make market A no longer so profitable as the second or third most profitable markets, D and E, which can still be served by excess capacity in the plant in country F. *(Cont. on p. 160)*

CHANGING YOUR ADDRESS?

Notice of change of address for THE CONTROLLER should be received in the editorial offices of THE CONTROLLER, Two Park Avenue, New York 16, N. Y., before the first of the month to affect the following month's issue. For instance, if you desire the address changed for your May issue, we should be notified of your new address before April 1. *Be sure to include your postal zone as well as your old and new address.*

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Market A appears to be the most profitable simply because it is supplied with the lowest cost raw material available in the system. Supplying instead the same raw material to country B might make market B appear most profitable. When the impact on the enterprise's total profits is the same whichever country consumes the limited supplies of low-cost raw material, there can be no real change in profitability. This is often the case where, for example, supplies of low-cost crude oil can be supplied at equal cost to alternative refineries. Where, however, total profits are increased by supplying markets in a certain way, then the increase is properly identified with the markets whose profitability has also increased.

Switching country C's source of raw material or semifinished part from country A to country B, because B has lower costs, may also mean the loss of import licenses into country A for the end products which have always been finished and assembled in country C. The import licenses have been granted on the basis of a balanced import-export position between A and C, and this would no longer be the case.

AREAS WHICH CALL FOR CAUTION

Having identified his most profitable markets and products, the world-enterprise president might seem ready to capitalize on his opportunities. But there is one more set of obstacles to overcome in the translation of plans into action.

Experienced world enterprises have found three areas where caution must be exercised.

First, most countries cannot be told in the same way as an American sales division can be told that these are your objectives for next year, I want to see your sales program and expense budgets to achieve them developed by October 31. Instead the language of advice, guidance, and counsel must be used at least overtly. If this is not done, chances are that the local authorities, particularly the tax administration, in an effort to bring more of the world company's profits into its net, will question the real location of control of the local company, especially if the line organization does not follow the statutory structure.

Second, the Department of Justice carries its antitrust inquiries way beyond the American shores.

Third, optimum requirements of the system may mean that the over-all greatest profit is achieved through one country's actually showing a loss. Although this may not be challenged immediately, and may even be overlooked by a mature country that recognizes the greater benefits to it of the company's continued presence and existence, the loss generally cannot continue for long. Most countries require a profit to be shown by foreign corporations, and will only recognize a loss that clearly arises from market conditions.

A top manager who looks at the results of world-wide operations and sees all profits reported as seemingly arising in Nassau, or Liberia, or Liechtenstein, and none in France or Italy or Australia is not going to be misled. He knows his operation too well. But, between being misled and knowing where profits are really made can lie great areas of confusion. When he sees freak results like this, the time has come to demand from his controller more realistic information.

Reverting to our original example, many oil company presidents in effect see just such freak results today. They read reports showing that their profits overseas arise from the sale of crude and are earned in the Middle East or Venezuela—or even by a Supply or Distribution Department located in New York. Meanwhile, German, Italian, or British refining and marketing operations seem to be operating at almost no profit.

These presidents know only too well that talk of crude profits alone is meaningless. But getting at their real profits and ranking their markets so far has escaped many of them. This article suggests an approach to tackling this problem, not for the oilman alone, but for others faced with similar confusion. It requires sound data, recognition of basic principles, and the cooperation of a controller's department dedicated to management's operating needs. With these as a basis for solving the problem, there is no reason why top management in a world enterprise should be misled at all.

★ OPPORTUNITIES ★

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SITUATIONS WANTED

ACCOUNTANT-CONTROLLER

16 years' experience, 12 years as assistant controller, office manager and cost accountant, 4 years CPA experience in analyses and statistical surveys. Study and install appropriate accounting systems. Multiplant consolidated statements, taxes, interim financial reports. B.S. in accounting, married, age 35. Salary $10,000 to $12,000. Box 2405.

PROFIT-PLANNING MANAGER

Broadly experienced, imaginative accounting executive. Emphasis on budgets, cost systems, economic analyses, management reports as tools to achieve corporate goals. Heavy industry many years. New York City area only. Box 2485.

FINANCIAL EXECUTIVE

CPA, assistant controller growing electronics company. Heavy experience developing IBM, budgeting. Responsible for cash control and turnover, cash forecasting, credit, collections, overhead control, reporting. Responsible winding up affairs of manufacturing subsidiary in process of liquidation. Box 2487.

CONTROLLER-TREASURER

Corporation administrative executive offers extensive background as controller for multiplant operation. Practical experience in financial reporting, cost reduction, budgeting, taxes and general corporate planning. Completely revised accounting procedures and supervised installation of IBM equipment. Controller for past eight years. Married, age 41. Box 2489.

CONTROLLER AVAILABLE

Assistant, divisional or plant. Broad accounting, cost control, administrative background in both multicorporate operations and medium-sized concerns. Heavy credit experience supplemented by well-rounded diversified background. Will relocate. Resume available. Write Box 2490.

SITUATIONS WANTED (Continued)

SYSTEMS AND PROCEDURES ELECTRONIC DATA PROCESSING

Strong background in factory and office data systems including all aspects of systems and procedures work. Top experience in systems and programming of tape computers with good knowledge of punched cards. B.S., M.A. Age 39. Seeking supervisory or staff position in $13,000.00 range where ability to get things done can be fully used. Box 2491.

EXECUTIVE ACCOUNTANT SEEKS ASSOCIATION WITH A NATIONAL ORGANIZATION

Fourteen years' public and private accounting experience; currently controller of moderate-sized manufacturer. College trained in accounting and finance, advanced degree in business management, CPA, New York State. Accustomed to comprehensive responsibilities in management controls and supervision of integrated department. Box 2492.

ECONOMIST

26, with graduate degree seeks position with new or small financial or industrial enterprise. Offers university and government research experience. Approaches financial management with economics orientation. Also handles forecasting, planning, pricing and production problems. Versatile and responsible person. Replies to Box 2494.

CONTROLLER-TREASURER

Experienced in all phases of accounting, managerial and financial controls for a very large multiplant corporation. Diversified public accounting experience. Degree, CPA, and graduate work. Salary open. Box 2495.

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